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(54) Title: METHOD OF DETERMINING PROTEIN-LIGAND INTERACTIONS VIA COMPUTER MODELING (57) Abstract Disclosed is a method of determining receptor-ligand affinities by constructing a receptor protein model, placing a ligand into the binding pocket portion of the receptor protein model, calculating the protein-ligand interaction energies and then predicting the ligand binding affinity for the receptor protein from a mathematical equation. This method provides for a way of determining receptor binding affinities of potential ligand molecules without the need of actually preparing these molecules in a laboratory and testing them by <i>in vitro</i> receptor binding assays. Such determinations are useful for identifying potential ligands of receptors for use in studying receptor binding, in studying receptor activities, as potential modulators of receptor activity, and as actual or lead compounds useful as therapeutics which modulate receptor activity.		

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METHOD OF DETERMINING PROTEIN-LIGAND INTERACTIONS VIA COMPUTER MODELING

BACKGROUND OF THE INVENTION

5 The present invention generally relates to the field of protein topographical models and specifically to the use of receptor protein topographical models to determine the affinity of ligands for the modelled receptor protein.

 Current knowledge of protein secondary structures and the factors
10 governing the stability of such structures indicates that large complex proteins are composed of separate and essentially independent domains, which fold according to factors inherent in the amino acid sequence of the separate domains. Thus domains of proteins that are evolutionarily, but not functionally related, can fold into shapes that are topographically
15 similar (Sonnhammer and Kahn, *Protein Sci.* 3:482-492 (1994)).

 The folding patterns of the protein backbone of bacterial periplasmic binding proteins reveal a surprising similarity in the topography of the protein structures. They all exhibit a bilobed architecture. Generally the topography of the individual lobes follows the
20 same design wherein the protein sequence forms alternatively β -strand and α -helical arrays which are arranged in opposing directions. Each lobe is formed by a central parallel stranded β -sheet at its core and a series of α -helical sequences surrounding the central core. The ligand binding site within these proteins is formed by the upper surface of lobe I and the
25 lower surface of lobe II. This architecture can be seen in leucine/alanine/ornithine-binding protein (LAOBP; Oh *et al.*, *J. Biol. Chem.* 268:11384-11355 (1993)), arabinose-binding protein (ABP; Quioco and Vyas, *Nature* 310:381 (1984)), galactose-binding protein (GBP; Vyas *et al.*, *Science* 242:1290-1295 (1988); Mowbray *et al.*,
30 *Receptor* 1:41-54 (1990)), maltose-binding protein (MBP; Spurlino *et al.*, *J. Biol. Chem.* 266:5202-5219 (1991)), and sulfate-binding protein (SBP; Pflugrath and Quioco, *J. Mol. Biol.* 200:163-180 (1988)). The location

of the ligand binding site places the ligand in contact with the loop regions of the proteins which connect the highly conserved β -strands and α -helices. Analogous loop regions are seen to interact with the bound ligand in all the structures of these bacterial periplasmic binding proteins.

5 Two theories may be proposed to rationalize such topographical similarities inherent in this family of proteins. If all such bacterial periplasmic binding proteins were evolutionarily derived from common ancestral proteins it would be expected that the functional binding pockets were conserved throughout the process of evolution. Consequently it
10 should not be surprising that the ligand binding site for ligands as diverse as sugars, amino acids and polyanionic oxyanions would share the same topographical features and only differ in the protein side chains presented to the ligands. Alternatively, it may be argued that these proteins are not derived from a common ancestor, but instead have evolved to a common
15 topography which is unusually efficient in the binding of individual ligands.

Irrespective of the evolutionary driving force, the topographical features which form the ligand binding pocket in periplasmic binding proteins are very highly conserved. Furthermore, these same features can
20 be identified in a range of ligand binding sites from other families of proteins. The mononucleotide binding pocket, which is common to a large family of kinases and phosphatases, has been often recognized in an uncharacterized protein by the presence of two amino acid sequences known as the Walker A and B motifs (Walker *et al.*, *EMBO J.* 1:945-951
25 (1982); Hasemann *et al.*, *Structure* 4:1017-1029 (1996)). These motifs are highly conserved amino acid sequences which are directly involved in the binding of the mononucleotide ligand. The location of these motifs within such proteins is consistent with the topography of the bacterial periplasmic binding protein ligand binding site, suggestive of a topographical similarity
30 within these families of proteins.

Additionally, recent work by Quioco has shown that the family of DNA repressor proteins exemplified in the *Lac* repressor and the *Gal*

repressor have essentially topographically identical repressor ligand binding sites to the sugar binding variants of the bacterial periplasmic binding proteins. This comparison has recently been verified by crystallographic analysis of these proteins both with and without bound repressor ligands. Indeed, not only are the binding sites in these proteins highly comparable, but the mechanism of action of the individual proteins is essentially the same (ligand binding may either induce or inhibit a closing of the bilobic structure in a manner that has been compared to a "Venus Fly-trap"; Quioco, *Phil. Trans. R. Soc. Lond. B* 326:341-351 (1990)).

It has been suggested that the ligand binding domain of the metabotropic glutamate receptors (mGluR1-9), a family of G-protein coupled membrane bound receptors, is comparable to the topography of the bacterial periplasmic binding protein leucine/isoleucine/valine binding protein (LIVBP); O'Hara *et al.*, *Neuron* 11:41-52 (1993). A detailed model of the ligand binding domain of mGluR1 has recently been proposed in O'Hara *et al.* based upon the known structural coordinates of LIVBP. These correlations are strong evidence for evolutionary derivation of these families of proteins from a common parent, (Figure 1).

Employing a similar comparative approach to that outlined above, Nakanishi (Nakanishi *et al.*, *Neuron* 5:569 (1990)) was the first to suggest that the ionotropic glutamate receptor proteins, even though much larger and more complex, may share the same topography of the ligand binding site as the bacterial periplasmic binding proteins. He suggested that the ionotropic glutamate receptor proteins are part of a much larger family of ligand-gated ion channel proteins comprising the nicotinic acetylcholine, γ -aminobutyric acid, glycine, and serotonin receptor proteins. Additional invertebrate derived ligand-gated ion channels, such as the invertebrate glutamate receptors, probably share a common topography with the vertebrate analogs.

Extensive analysis of the crystal structures of the bacterial periplasmic binding proteins allowed through comparison of these

structures to be made by Quioco (Quioco, *Curr. Opin. Struct. Biol.* 1:922 (1992); *Phil. Trans R. Soc. Lond. B* 326:341-351 (1990)).

Although the sequence identity of this family of proteins is not necessarily high (often less than 30%) and the endogenous ligands are highly varied (sugars, cationic amino acids, neutral amino acids and polyanionic oxyanions such as sulfate), the proteins exhibit a common topographic frame work around which the binding domain structure is built. The ligand binding site in all members of this family of proteins is formed from the analogous "loop" regions of the protein between common β -strands and α -helices. Remarkably, the preferred ligand varies considerably but the location of the binding site does not.

Excitatory neuronal transmission within the central nervous system (CNS) is mediated predominantly by ion flux through a family of cation selective ion channel complexes gated by the neurotransmitter L-glutamate. Subclassification of these protein complexes, based upon the pharmacological properties of a series of natural and unnatural agonists (Figure 2), has shown the family to be divided into two major subtypes: the N-methyl-(D)-aspartate (NMDA) receptors (NR1 and NR2) and the non-NMDA receptors. The latter group may be further divided into those specifically activated by 2(S)-amino-3-(5'-methyl-3'-hydroxyisoxazoline)-propionic acid (AMPA) (AMPA receptors, GluR1-4) and those preferentially activated by kainic acid (KA receptors, GluR5-7, KA1 and KA2; Sommer and Seeburg, *Trends in Pharmacol. Sci.* 13:291-296 (1992)).

Compounds which inhibit NMDA and AMPA receptors have been shown to be effective neuroprotectants under conditions of ischemic insult and additionally have potential in the treatment of conditions such as stroke, head trauma and epilepsy. Compounds which modulate the kainate receptor may be useful for the treatment of neuropathic pain. Efforts to find NMDA receptor antagonists and blockers which are neuroprotective in animal models have been very successful while efforts to find AMPA or KA antagonists, have been much less successful. A number of

pharmaceutical companies have pursued clinical development of ion channel blockers or full antagonists of the NMDA, AMPA and kainate receptors to protect against both chronic and acute neurodegenerative processes. Although, several compounds have entered clinical trails there
5 has been only limited progress in developing a clinically useful NMDA or AMPA receptor antagonist because the compounds exhibit severe side effects ranging from hallucinations and loss of coordination, to neuronal damage, memory impairment, learning disability and nephrotoxicity. There still exists a need to find new compounds which can safely inhibit
10 the function of NMDA, AMPA, or KA receptors. Key to the search for new compounds is determining which structures bind to which receptor and their binding affinity for that receptor.

Recently Nakanishi (Nakanishi *et al.*, *Neuron* 5:569 (1990)) suggested that the general topography of the agonist ligand binding site of
15 ionotropic glutamate receptors is homologous to that of the bacterial periplasmic binding proteins. Many examples of these proteins have been analyzed by X-ray crystallography both with and without associated ligands. Actual comparison of the amino acid sequences of ionotropic glutamate receptors and the lysine/arginine/ornithine binding protein
20 (LAOBP) shows a very low level of both sequence similarity (less than 30%) and identity (less than 15%) within the identified regions. Following Nakanishi's work, Stern-Bach *et al.* (Stern-Bach *et al.*, *Neuron* 13:1345 (1994)) concluded from a series of experiments involving GluR3/GluR6 chimeric proteins that the ligand binding domains of these proteins are
25 topographically similar to the periplasmic binding protein LAOBP. A detailed study of chimeric GluR3/GluR6 receptors revealed a pattern of amino acid sequences which was shown to drive the AMPA/KA selectivity of these proteins. This pattern of sequences could be overlaid onto the known binding site of LAOBP, leading the authors to speculate that the
30 agonist binding domain of the glutamate receptors and LAOBP display homologous tertiary structures. Construction of a simple homology model of this portion of the AMPA receptor, based upon the crystal structure of

LAOBP, generated a bilobed cartoon-like model of the agonist binding domain. The significance of this effort is diminished by key inaccuracies in the glutamate receptor sequences employed in the comparison with LAOBP. Sutcliffe (Sutcliffe *et al.*, *Biophysical J.* 70:1575 (1996)) has recently proposed a different alignment of the related KA receptors with LAOBP, and has constructed the analogous homology model. Sutcliffe suggested a highly novel glutamate binding mode for the NMDA receptor but did not show any details of the binding mode for glutamate and further did not suggest a predictive model for glutamate binding.

It is therefore an object of the present invention to provide a method of building a predictive binding protein model based on topographical similarity to a binding protein of known structure.

It is also an object of the present invention to provide a method of predicting the affinity of a potential ligand molecule for a binding protein.

It is also an object of the present invention to provide a method of predicting the selectivity of a potential ligand molecule for a family of related binding proteins in order to reduce unwanted side effects.

BRIEF SUMMARY OF THE INVENTION

Disclosed is a method of determining receptor-ligand affinities by constructing a receptor protein model, placing a ligand into the binding pocket portion of the receptor protein model, calculating the protein-ligand interaction energies and then predicting the ligand binding affinity for the receptor protein from a mathematical equation. This method provides a way of determining receptor binding affinities of novel molecules without the need of actually preparing these molecules in a laboratory and testing them by *in vitro* receptor binding assays. Such determinations are useful for identifying novel receptor ligands, and actual or lead compounds useful as therapeutics which modulate receptor activity.

Specific examples of the disclosed method are provided. In one embodiment, a method is provided that allows the prediction of ligand

binding affinities to receptor proteins that contain bacterial amino acid periplasmic protein topographical binding domains. In another embodiment, a method is provided that allows the prediction of ligand binding affinities to receptor proteins that contain LAOBP topographical binding domains. In another embodiment, a method is provided that allows the prediction of NMDA, AMPA and KA receptor ligand binding affinities. The disclosed method allows such predictions by describing a protein topographical model of the ligand binding pocket of each receptor, building a predictive equation of binding affinity based upon a known basis set of molecules, placing a novel ligand in the pocket, calculating the energies of the bound and unbound protein and ligand, and fitting the results to a predictive equation.

In a preferred mode, the disclosed method is a computer based method for predicting the binding affinity of actual or potential ligand molecules to receptor proteins. Preferably, this can be accomplished by:

- (1) building a model of a protein-ligand binding domain (also referred herein to as a ligand binding pocket) based upon the similarity of the receptor protein structural topography to bacterial amino acid periplasmic binding proteins,
- (2) refinement of the protein-ligand binding domain model by energy minimization of the protein with a high affinity ligand in the binding pocket (the resulting protein-ligand binding domain model is also referred to herein as the receptor protein model),
- (3) calculating a series of interaction energies (E_{interact}) by calculating the energies of the receptor protein model (E_{receptor}) and basis set molecules (E_{molecule}) individually, and the total energies of the individual bound complexes formed from the protein and basis set molecules ($E_{\text{receptor + molecule}}$), as shown in equation 1,

$$E_{\text{interact}} = E_{\text{receptor + molecule}} - (E_{\text{receptor}} + E_{\text{molecule}}) \quad (\text{Eq. 1})$$

(4) generating a predictive equation, such as equation 2, by doing a regression analysis on the basis set,

$$\text{Ligand Affinity} = -xE_{\text{interact}} + y\text{Mol.Charc.}_{\text{ligand}} - z\text{Mol.Charc.}_{\text{ligand}} + N \quad (\text{Eq. 2})$$

5 where Mol.Charc._{ligand} is a molecular characteristic and x, y, z, and N are the regression parameters,

(5) calculating the interaction energy (E_{interact}^*) for a potential ligand molecule by calculating energies of the receptor protein model (E_{receptor}) and potential ligand molecule (E_{molecule}^*) individually and the
10 energy of the individual bound complex formed from the protein and the potential ligand molecule ($E_{\text{receptor} + \text{molecule}}^*$), as shown in equation 3, and

$$E_{\text{interact}}^* = E_{\text{receptor} + \text{molecule}}^* - (E_{\text{receptor}} + E_{\text{molecule}}^*) \quad (\text{Eq. 3})$$

(6) fitting the data for the difference in the energies (E_{interact}^*) and other molecular characteristics such as, molecular volume and number
15 of rotatable bonds to the predictive equation, equation 2.

It is specifically contemplated that where a model of a protein-ligand binding domain already exists, or where such a model has been built in a different manner or from different information than in the first step above, the method can be practiced by performing remaining steps
20 (for example, steps 2 through 6 above) using such a model. It is also specifically contemplated that once a predictive equation has been generated for a given protein-ligand binding domain model (using, for example, steps 1 through 4, or 2 through 4, above), the method can be practiced by performing the remaining steps (for example, steps 5 and 6
25 above) using the predictive equation and the model. It is also specifically contemplated that the various steps of any of the modes in the disclosed method need not be performed in any specific time frame to constitute practice of the disclosed method. Thus, for example, the various steps can be performed at different times and in different locations while still
30 collectively constituting practice of the method.

Without being limited to any particular theory, the disclosed method is based in part on the realization that, while the overall

topography of complete ligand-gated ion channel proteins is known to vary with the number of transmembrane regions inherent in these proteins (leading to the C-terminal domain of these proteins being either intra- or extracellular), sequence similarities in the regions shown to influence
5 ligand binding suggest a common topography for the ligand binding domains of these proteins. Thus, it was realized that all ionotropic glutamate receptors, such as those discussed in Examples 1 through 4, are likely members of a much larger class of ligand-gated ion channel associated receptor proteins.

10

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a diagram showing the possible evolutionary relationship of the bacterial periplasmic binding protein related proteins to sugar and oxyanion binding proteins. In this diagram, AMPA refers to
15 2(S)-amino-3-(5'-methyl-3'-hydroxyisoxazoline)-propionic acid, GABA refers to γ -aminobutyric acid, nACh refers to nicotinic acetylcholine, 5-HT₃ refers to class 3 5-hydroxytryptamine (serotonin) receptor, LAOBP refers to lysine/ arginine/ornithine binding protein, LIVBP refers to the bacterial periplasmic binding protein LIVBP, mGluRs refers to
20 metabotropic glutamate receptors, GalBP refers to galactose binding protein, and MalBP refers to maltose binding protein.

Figure 2 is a diagram showing the structures of ligands which activate ionotropic excitatory amino acid receptors. Specifically, the structures of L-glutamate, N-methyl-(D)-aspartate (NMDA), 2(S)-amino-3-
25 (5'-methyl-3'-hydroxyisoxazoline)-propionic acid (S-AMPA), and kainic acid are depicted.

Figure 3 is a diagram showing the structures of fifteen molecules which make up the GluR3 model basis set of molecules, and a sixteenth molecule used to test the GluR3 model and predictive equation.

30 Figure 4 is a diagram showing the structures of molecules which make up the of KA receptor model basis set of molecules and a molecule used as a potential ligand molecule. These are designated, in order, L-

Glu, SYM 2081, SYM 2048, SYM 2077, SYM 2047, SYM 2084, SYM 2072, SYM 2194, SYM 2139 and SYM 2114. The potential ligand molecule is designated SYM 2083.

5 Figures 5A, 5B, 5C, and 5D are a table showing the alignment of amino acids in LAOBP (SEQ ID NO:1), NR1-Z (SEQ ID NOs:2 and 3), NR2-C (SEQ ID NOs:4 and 5), NR2-B (SEQ ID NOs:6 and 7), NR2-A (SEQ ID NOs:8 and 9), GluR3 (amino acids 4 to 123 of SEQ ID NO:10 and amino acids 2 to 150 of SEQ ID NO:11), and GluR6 (amino acids 4 to 123 of SEQ ID NO:12 and amino acids 2 to 146 of SEQ ID NO:13).
10 Consensus segments are also shown (SEQ ID NOs:14 through 25).

 Figures 6A and 6B are a table showing the alignment of amino acids in LAOBP (SEQ ID NO:1), GluR3 (amino acids 1 to 120 of SEQ ID NO:10 and amino acids 1 to 149 of SEQ ID NO:11), and GluR6 (amino acids 1 to 120 of SEQ ID NO:12 and amino acids 1 to 145 of SEQ ID
15 NO:13).

DETAILED DESCRIPTION OF THE INVENTION

A. Definitions

 The disclosed method can be understood by reference to the
20 following definitions.

 Basis Set: A set of three or more molecules that binds to the receptor protein of interest for which experimentally determined binding affinities spanning a range of at least 2 log units are known.

 Potential Ligand Molecule: A molecule of interest for which the
25 binding characteristics to a binding protein are to be calculated using the disclosed method.

 Topographical: Relating to the spatial relationship of physical features of a place or region of a protein.

 Topographical similarity: Similarity of the spatial relationships of
30 physical features of a place or region of one protein with those of another protein.

Ionotropic Receptors: A protein which either individually or by oligomerization with other proteins forms an ion channel.

AMPA: 2(S)-amino-3-(5'-methyl-3'-hydroxyisoxazoline)-propionic acid.

5 AMPA receptor: A postsynaptic or pre-synaptic receptor which is stimulated, at a minimum, by the excitatory amino acid glutamic acid as well as by AMPA. It is a ligand-gated ionotropic receptor.

10 Stimulation of a receptor: Activation of a receptor protein so as to induce a functional change in the protein resulting in a change in a measurable physiological property of the protein associated with the native function of that protein.

15 Kainate Receptor: A postsynaptic or presynaptic receptor which is stimulated, at a minimum, by the excitatory amino acids glutamic acid as well as by kainic acid, but is not stimulated by NMDA or AMPA. It is a ligand-gated ionotropic receptor.

Ligand Affinity: A measure of how tightly a molecule binds to a protein relative to another molecule. Higher (or greater) affinity indicates tighter binding.

NMDA: N-methyl-(D)-aspartate.

20 NMDA Receptor: A postsynaptic or pre-synaptic receptor which is stimulated, at a minimum, by the excitatory amino acid glutamic acid as well as by NMDA, but is not stimulated by AMPA or kainic acid. It is a ligand-gated ionotropic receptor.

25 NMDA receptor glutamate site: A ligand binding site present on NMDA receptor proteins which binds L-glutamic acid and NMDA.

NMDA receptor glycine site: A ligand binding site present on NMDA receptor proteins which binds glycine and not glutamate or NMDA.

30 E_{receptor} : The energy of a receptor protein model calculated from an ensemble of atoms representing the receptor protein model using a Force Field such as CHARMM (Brooks *et al.*, *J. Comp. Chem.* 4:187-217

(1983), MM1, or MM2 (Kao and Allinger, *J. Am. Chem. Soc.* 99:975 (1972)).

Force field: A series of parameters representative of the various attractive and repulsive components of the interaction between two atoms
5 (See, for example, Kao and Allinger).

E_{molecule} : The energy of a molecule calculated from an ensemble of atoms representing the molecule using a Force Field such as CHARMM, MM1, or MM2.

$E_{\text{receptor+molecule}}$: The total energy of a bound complex formed from
10 a protein and molecule calculated from an ensemble of atoms representing the bound complex using a Force Field such as CHARMM, MM1, MM2.

E_{molecule}^* : The energy of a potential ligand molecule calculated from an ensemble of atoms representing the potential ligand molecule using a Force Field such as CHARMM, MM1, or MM2.

15 $E_{\text{receptor+molecule}}^*$: The total energy of a bound complex formed from a protein and potential ligand molecule calculated from an ensemble of atoms representing the bound complex using a Force Field such as CHARMM, MM1, MM2.

Mol. Charc.: A molecular characteristic such as, but not limited
20 to, molecular volume, number of rotatable bonds, molar refractivity, and dipole moment.

Computer based: In reference to a method, a method in which at least some of the steps are carried out with, or facilitated by a computer.
In reference to a model, a model in which a representation of the structure
25 of the modelled object is contained in a computer. Such a model is also referred to herein as a computer model.

B. Method

A general form of the disclosed method involves a series of specific steps which result in the generation of a model of a protein-ligand
30 binding domain, generation of a predictive equation for the energy of protein-ligand complexes, and fitting the calculated energy of a complex of the protein and a potential ligand molecule to the predictive equation.

In a preferred mode, the disclosed method is a computer based method for predicting the binding affinity of actual or potential ligand molecules to receptor proteins. Preferably, this can be accomplished by:

(1) building a model of a protein-ligand binding domain (also referred herein to as a ligand binding pocket) based upon the similarity of the receptor protein structural topography to bacterial amino acid periplasmic binding proteins,

(2) refinement of the protein-ligand binding domain model by energy minimization of the protein with a high affinity ligand in the binding pocket (the resulting protein-ligand binding domain model is also referred to herein as the receptor protein model),

(3) calculating a series of interaction energies (E_{interact}) by calculating the energies of the receptor protein model (E_{receptor}) and basis set molecules (E_{molecule}) individually, and the total energies of the individual bound complexes formed from the protein and basis set molecules ($E_{\text{receptor + molecule}}$), as shown in equation 1,

$$E_{\text{interact}} = E_{\text{receptor + molecule}} - (E_{\text{receptor}} + E_{\text{molecule}}) \quad (\text{Eq. 1})$$

(4) generating a predictive equation, such as equation 2, by doing a regression analysis on the basis set,

$$\text{Ligand Affinity} = -xE_{\text{interact}} + y\text{Mol.Charc.}_{\text{ligand}} - z\text{Mol.Charc.}_{\text{ligand}} + N \quad (\text{Eq. 2})$$

where $\text{Mol.Charc.}_{\text{ligand}}$ is a molecular characteristic and x, y, z, and N are the regression parameters,

(5) calculating the interaction energy (E_{interact}^*) for a potential ligand molecule by calculating energies of the receptor protein model (E_{receptor}) and potential ligand molecule (E_{molecule}^*) individually, and the energy of the individual bound complex formed from the protein and the potential ligand molecule ($E_{\text{receptor + molecule}}^*$), as shown in equation 3, and

$$E_{\text{interact}}^* = E_{\text{receptor + molecule}}^* - (E_{\text{receptor}} + E_{\text{molecule}}^*) \quad (\text{Eq. 3})$$

(6) calculating the affinity of the potential ligand molecule by fitting the data for the difference in the energies (E_{interact}^*) and other

molecular characteristics such as molecular volume and number of rotatable bonds to the predictive equation, equation 2.

The method can also be practiced using an existing model, or a model built in a different manner or from different information than in the first step above. The method can also be practiced using a predictive equation which has been previously generated for a given protein-ligand binding domain model. That is, practice of the disclosed method does not require that a model be built or a predictive equation generated each time the binding characteristics of a potential ligand are to be determined using the method. In fact, it is preferred that a model be built and a predictive equation generated only once, while the model, the predictive equation, or both, are used numerous times for numerous potential ligand molecules. Such multiple and subsequent use of the results of the early steps of the disclosed method is considered to be an extension or continuation of the earlier steps and, in ultimate combination with the earlier steps, to constitute an individual instance of the full method.

1. Building A Model.

It is preferred that an initial model of a protein-ligand binding domain of a receptor of interest be built by reference to a related bacterial amino acid periplasmic binding protein. This is preferably accomplished by first aligning the receptor to a bacterial amino acid periplasmic binding protein. An example of such an alignment, specifically alignment of glutamate receptor ligand binding sites with LAOBP, is discussed by Stern-Bach *et al.* (*Neuron* 13:1345 (1994)) and is shown in Figure 5. The alignment can be adjusted if there is a high variance in regression analysis used for generating the predictive equation.

An alignment such as is shown in Figure 5 indicates the possible presence of an evolutionarily conserved ligand binding domain. A topographical model of a protein can then be constructed based upon the crystal structure of the bacterial amino acid periplasmic binding protein and the above alignment. Preferred bacterial binding proteins are leucine/alanine/ornithine-binding protein (LAOBP; Oh *et al.*, *J. Biol.*

Chem. 268:11384-11355 (1993)), arabinose-binding protein (ABP; Quioco and Vyas, *Nature* 310:381 (1984)), galactose-binding protein (GBP; Vyas *et al.*, *Science* 242:1290-1295 (1988); Mowbray *et al.*, *Receptor* 1:41-54 (1990)), maltose-binding protein (MBP; Spurlino *et al.*, *J. Biol. Chem.* 266:5202-5219 (1991)), and sulfate-binding protein (SBP; Pflugrath and Quioco, *J. Mol. Biol.* 200:163-180 (1988)), ribose receptor-binding protein (RBP; Mowbray and Cole, *J. Mol. Biol.* 225:155-175 (1992)), leucine/isoleucine/valine-binding protein (LIVBP; Sack *et al.*, *J. Mol. Biol.* 206:171-191 (1989), leucine-binding protein (LBP; Sack *et al.*, *J. Mol. Biol.* 206:193-207 (1989), and PotD (Sugiyama *et al.*, *J. Biol. Chem.* 271:9519 (1996)). The model can be constructed using any suitable medium or structural convention. It is preferred that the model be constructed employing a commercially available computer protein modeling package such as "Quanta v4.0" (Molecular Simulations Incorporated), or "Discover" (Tripos Incorporation). Such modeling programs and their general use are known to those of skill in the art. It is specifically contemplated that any computer based protein modeling system which can be used to calculate molecular energies is suitable for use in, and is a preferred medium for practicing, the disclosed method. Those regions of the protein hypothesized to adopt a secondary structure topographically similar to the bacterial amino acid periplasmic binding protein are modelled by duplicating those regions of the template protein. In the disclosed method, it is preferred that this is done primarily through alignment of the protein to a bacterial periplasmic binding protein (although any additional information regarding either the structure of the protein or the similarity of the structure to the bacterial protein can also be used). Conversely, those sequences of the protein that are additional to, or different from, the basic template structure (of the bacterial protein) can be analyzed according to the standard algorithms for predicting protein secondary structure (Holley and Karplus, *Proc. Natl. Acad. Sci. USA* 86:152-156; LaRosa *et al.*, *Science* 249:932-935 (1990); Garnier *et al.*, *J. Mol. Biol.* 120:97-120 (1978)). With such tendencies in mind, these

sequences can be modeled by comparison to a protein structural library, such as the Brookhaven Protein Database, and annealed onto the existing framework. Such a comparison is preferably accomplished by utilizing the ends of the template protein backbone, into which a loop or insert is to be added, as a pair of reference points in a search of a subset of the protein database. This search identifies known secondary structural units, of the same length as the unknown insert, which start and finish in a manner spatially similar and complementary to the reference points.

2. Refinement Of The Model.

The complete model is refined by fully minimizing the energy of the model of the protein with a high affinity ligand in the binding pocket. Minimization of the complete model is preferably accomplished using an algorithm such as adopted-basis set Newton-Raphson, with a dielectric constant of 1 to 20, initially holding the peptide backbone rigid (until the root mean square difference is less than 0.01), and then without any constraints. Semi-systematic refinement of the individual side chain conformations is preferably performed by manual pairing of complimentary charged residues to a known receptor ligand, followed by repeated minimization until a consistent low energy solution is attained. Pairs are preferably selected by the surface distribution of the respective complementary charged residue side chains.

3. Calculating The Interaction Energy.

The interaction energy (E_{interact}) for the individual molecules, such as basis set molecules, can be calculated as in equation 1.

$$(E_{\text{interact}} = E_{\text{receptor + molecule}} - (E_{\text{receptor}} + E_{\text{molecule}})) \quad (\text{Eq. 1}).$$

The energy of the protein (E_{receptor}) and the individual molecules (E_{molecule}) can be calculated using standard techniques. These energies can be calculated using known techniques, based on, for example, the principles and techniques described in Kao and Allinger, *J. Am. Chem. Soc.* 99:975 (1972), and Brooks *et al.*, *J. Comp. Chem.* 4:187-217 (1983). Preferably, the energies are calculated with the aid of a molecular modeling computer program such as those described elsewhere herein. The basis set

molecules are preferably modeled in a fully ionized state. To determine the energy of a receptor/molecule complex ($E_{\text{receptor+molecule}}$), individual molecules should be placed within close proximity (2 to 3 Å) of the expected binding pocket model, followed by minimization of the receptor/molecule complex. For each molecule the starting conformation and orientation of the molecule within the binding pocket should be systematically adjusted and the complex re-minimized. Only the lowest energy structure (that is, the structure having the lowest $E_{\text{receptor+molecule}}$) should be retained after each iteration.

4. Generating A Predictive Equation.

The characteristics of the molecules, such as, but not limited to, volume, can be computed by, for example, employing a 0.5 Å grid overlaying the van der Waals surface of the final bound conformation of the individual molecules. Rotatable bonds for a particular molecule can be identified as those bonds whose position in the bound complex are necessarily fixed by interactions with the protein surface. Regression analysis, such as linear regression analysis, of these characteristics with the observed affinity of these ligands results in a predictive equation such as equation 2.

$$\text{Protein Affinity} = -xE_{\text{interact}} + y\text{Mol.Charc.}_{\text{ligand}} - z\text{Mol.Charc.}_{\text{ligand}} + N \quad (\text{Eq. 2})$$

The predictive equation can use as many molecular characteristics as desired. The use of two, three, or four molecular characteristics is preferred. The use of two molecular characteristics (in addition to E_{interact}) is most preferred.

5. Calculating The Interaction Energy Of A Potential Ligand.

The interaction energy (E_{interact}^*) for a potential ligand molecule can be calculated as in Equation 3.

$$E_{\text{interact}}^* = E_{\text{receptor+molecule}}^* - (E_{\text{receptor}} + E_{\text{molecule}}^*) \quad (\text{Eq. 3})$$

The energy of the protein (E_{receptor}) and the potential ligand molecule (E_{molecule}^*) can be calculated using standard techniques. The potential ligand molecule is preferably modeled in a fully ionized state. To

calculate $E_{\text{receptor} + \text{molecule}}^*$, the potential ligand molecule should be placed within close proximity (2 to 3 Å) of the expected binding pocket model, and the receptor/molecule complex re-minimized. The conformation and orientation of the molecule within the binding pocket should then be systematically adjusted and the complex re-minimized. Only the lowest energy structure should be retained after each iteration, $E_{\text{receptor} + \text{molecule}}^*$).

6. Calculating The Affinity Of A Potential Ligand.

The characteristics of a potential ligand molecule (the same characteristics determined and used for the basis set molecules) can be computed employing a 0.5 Å grid overlaying the van der Waals surface of the final bound conformation of the potential ligand molecule. Rotatable bonds for the potential ligand molecule can be identified as those bonds whose position in the bound complex are necessarily fixed by interactions with the protein surface. The results can then be inserted into the predictive equation (Equation 2) and the resulting affinity for the potential ligand molecule for the protein can be calculated.

7. Predicting the Selectivity of Potential Ligands.

Many binding proteins belong to families of binding proteins which can, to a greater or lesser extent, interact with similar ligands. Families of neurotransmitter receptors are well known examples of this. For various reasons, it is desirable to alter the activity of one or a subset of binding proteins in such a family. For this purpose, specific ligands have been discovered which have a higher affinity for one binding protein in a family than for other members. The disclosed method can be used to identify potential ligands which are selective for one or a subset of members of a binding protein family. Preferably, this is accomplished by building and refining models of the binding pockets for relevant members of a binding protein family, and generating predictive equations for each model. The affinity of a potential ligand molecule can then be calculated for each binding protein and the affinities compared. Selective ligand molecules can be identified as those having a desired pattern of affinities for the binding protein family members. For example, a ligand might be

sought having a high affinity for one of the binding proteins but not for any of the others. Such ligands could then be used for the study of the activity of the binding protein of interest, or for selectively altering the activity of the binding protein of interest.

5

Examples

Example 1: AMPA Receptor Model

The following example illustrates application of the disclosed method to the AMPA receptor GluR3.

10 (1) Alignment of LAOBP and GluR3 was determined in a manner similar to that suggested by Stern-Bach *et al.* with a correction for the missing lysine at position 683 of GluR3. The resulting alignment is shown in Figure 5. A topographical model of GluR3 based upon the known crystal structure of LAOBP was then constructed. The model was
15 constructed employing the protein modeling package of "Quanta v4.0" (Molecular Simulations Incorporated). Those regions hypothesized to adopt a secondary structure topographically similar to LAOBP were modeled by duplicating those regions of the template protein (LAOBP). Conversely, those sequences of GluR3 that were additional to the basic
20 template structure were analyzed according to the standard algorithms for predicting protein secondary structure. These sequences were subsequently modelled by comparison to a protein structural library and annealed onto the existing framework.

(2) The complete model was fully minimized using the adopted-
25 basis set Newton-Raphson algorithm with a dielectric constant of 1, initially holding the peptide backbone rigid (until the root mean square (r.m.s.) difference was less than 0.10 Å), and then without any atomic constraints. AMPA was chosen as a representative high affinity ligand. It was manually placed in the binding pocket of the GluR3 model and
30 minimized until the r.m.s. difference was less than 0.001 Å. Semi-systematic adjustment of the AMPA residues contacting the lining of the pocket and the individual side chain conformations was performed by

manual pairing of complementary charged residues, followed by repeated minimization until a consistent low energy solution was attained. The coordinates of the atoms in the resulting structure are listed in Table 3.

(3) The interaction energies (E_{interact}) for the molecules in a basis set for the AMPA receptor were calculated as in equation 1.

$$E_{\text{interact}} = E_{\text{receptor+ligand}} - (E_{\text{receptor}} + E_{\text{ligand}}) \quad (\text{Eq. 1})$$

The energies of the protein (E_{receptor}) and the individual molecules (E_{molecule}) were calculated using the protein modeling package "Quanta v4.0". The AMPA basis set molecules 1 to 15 (Figure 3) were modeled in a fully ionized state. Individual molecules were placed within close proximity (2 to 3 Å) of the expected binding pocket, and the receptor/molecule complex was re-minimized. For each of these antagonists, the conformation and the orientation of the molecule within the binding pocket was systematically adjusted and the complex re-minimized. Adjustments were made to both the torsional angles and the position of the molecule in the binding pocket. Only the lowest energy structure was retained after each iteration. The resulting minimum energy was used for $E_{\text{receptor+ligand}}$ in equation 1. The calculated E_{interact} for each molecule in the basis set is shown in Table 1.

Table 1 - Data set for AMPA receptor basis set molecules

Ligand	IC ₅₀ (³ H]AMPA) (μM)	p(IC ₅₀)	E _{interact}	Volume (Å ³)	Rot. Bonds	Predicted p(IC ₅₀)	Residual
1	0.052	7.28	-232	234	1	7.36	+0.08
2	0.080	7.10	-266	216	2	6.44	+0.66
3	1.166	6.78	-271	245	2	6.91	-0.13
4	1.153	6.82	-263	256	2	6.94	-0.12
5	0.34	6.47	-216	170	1	6.11	+0.36
6	0.20	6.70	-205	173	1	6.24	+0.46
7	2.00	5.70	-220	151	1	6.04	-0.34
8	0.15	6.82	-175	290	1	7.23	-0.41
9	0.70	6.15	-155	250	1	6.37	-0.22
10	7.20	5.14	-145	201	1	5.55	-0.41
11	0.58	6.24	-194	257	2	5.46	+0.78
12	0.63	6.20	-183	240	2	5.55	+0.65
13	1.35	5.87	-190	238	2	5.29	+0.58
14	44.0	4.36	-285	248	4	4.75	-0.39
15	24.0	4.62	-225	179	2	5.28	-0.66
16	0.85	6.07	-209	242	2	5.90	+0.17

(4) The volume of the ligands was computed employing a 0.5 Å grid overlaying the van der Waals surface of the final bound conformation of the individual ligands. Rotatable bonds for a particular ligand were assessed as those bonds whose position in the bound complex were necessarily fixed by interactions with the protein surface. Regression analysis of this data with the observed affinity of these ligands gave the relationship in equation 4, which is the predictive equation for the GluR3 model.

$$\text{GluR3 Affinity} = -0.016E_{\text{interact}} + 0.014\text{Vol}_{\text{ligand}} - 1.2\text{Rot}_{\text{bonds}} + 1.723 \quad (\text{Eq. 4})$$

The predictive equation was used to calculate a predicted affinity for each of the basis set molecules. Measures of affinity (both actual and as calculated), volume, and the number of interacting rotatable bonds for each of the molecules in the basis set are shown in Table 1. IC₅₀ refers to the concentration of the indicated ligand at which half of bound AMPA is released (a measure of the relative affinities the receptor has for AMPA and the ligand). The experimentally determined measurements are reported in Bigge *et al.*, *J. Med. Chem.* 38:3720-3740 (1995), for ligands 1-4, 6, 14, and 15, in Johansen *et al.*, *Eur. J. Pharmacol.-Mol. Pharmacol. Sect.* 246:195 (1993), for ligands 5 and 10, in Ohmuri *et al.*, *J. Med. Chem.* 37:467-475 (1994), for ligand 7, in Watjen and Drwjer, PCT Application WO 94/26747, for ligand 8, in Watjen *et al.*, *Bioorg. & Med. Chem. Lett.* 4:371-376 (1994), for ligand 9, and in Arnold *et al.*, European Patent No. 93306745.6, for ligands 11-13. p(IC₅₀) refers to the log of IC₅₀. The residual represents the difference between p(IC₅₀) and predicted p(IC₅₀) for each basis set molecule.

(5) The interaction energy (E_{interact}*) for a potential ligand molecule, compound 16 in Figure 3, was calculated using equation 5. Compound 16 is described (as compound 7b) in Lubisch *et al.*, *Bioorg. & Med. Chem. Lett.* 6:2887 (1996). The energies of the protein (E_{receptor}) and the potential ligand molecule (E₁₆) were calculated using the protein modeling package to be about -17154 and -14, respectively. The potential

ligand molecule was modeled in a fully ionized state. The molecule was placed within close proximity (2 to 3 Å) of the expected binding pocket, and the receptor/molecule complex was re-minimized. The conformation and orientation of the potential ligand molecule within the binding pocket was systematically adjusted and the complex re-minimized. Adjustments were made to both the torsional angles and the position of the molecule in the binding pocket. Only the lowest energy structure was retained after each iteration.

$$\begin{aligned} E_{\text{interact}}^* &= E_{\text{receptor}+16}^* - (E_{\text{receptor}} + E_{16}^*) \quad (\text{Eq. 5}) \\ &= -17,377 - (-17,154 - 14) \\ &= -209 \end{aligned}$$

(6) The volume of the potential ligand molecule was computed employing a 0.5 Å grid overlaying the van der Waals surface of the final bound conformation of the individual species. Interacting rotatable bonds for the potential ligand molecule were assessed as those bonds whose position in the bound complex were necessarily fixed by interactions with the protein surface. The rotatable bonds in compound 16 are indicated with the label R in Figure 3. The results were applied to equation 4 and the resulting affinity for protein binding was calculated. The predicted affinity (predicted p(IC₅₀)) of 5.9 was calculated by substituting the appropriate molecular characteristics into the predictive equation (Equation 4).

$$\begin{aligned} \text{GluR3 Affinity} &= -0.016E_{\text{interact}} + 0.014\text{Vol}_{\text{ligand}} \\ &\quad - 1.2\text{Rot}_{\text{bonds}} + 1.723 \quad (\text{Eq. 4}) \\ &= (-0.016 \times -209) + (0.014 \times 242) - (1.2 \times 2) + 1.723 \\ &= 5.9 \end{aligned}$$

The calculated affinity (IC₅₀) was thus 1.25 μM. The experimentally determined affinity for compound 16 is 0.85 μM.

Example 2: Kainate Receptor Model

The following example illustrates application of the disclosed method to the kainate receptor GluR6.

(1) Alignment of LAOBP and GluR6 was determined in a manner similar to that suggested by Stern-Bach *et al.* The resulting alignment is shown in Figure 5. A topographical model of GluR6 based upon the known crystal structure of LAOBP was then constructed. The model was constructed employing the protein modeling package of "Quanta v4.0" (Molecular Simulations Incorporated). Those regions hypothesized to adopt a secondary structure topographically similar to LAOBP were modelled by duplicating those regions of the template protein (LAOBP). Conversely, those sequences of GluR6 that were additional to the basic template structure were analyzed according to the standard algorithms for predicting protein secondary structure. These sequences were subsequently modelled by comparison to a protein structural library and annealed onto the existing framework.

(2) The complete model was fully minimized using the adopted-basis set Newton-Raphson algorithm with a dielectric constant of 1, initially holding the peptide backbone rigid (until the r.m.s. difference was less than 0.01 Å), and then without any atomic constraints. Kainic acid was chosen as a representative high affinity ligand. It was manually placed in the binding pocket of the GluR6 model and minimized until the r.m.s. difference was less than 0.001 Å. Semi-systematic adjustment of the KA residues contacting the lining of the pocket and the individual side chain conformations was performed by manual pairing of complimentary charged residues, followed by repeated minimization until a consistent low energy solution was attained. The coordinates of the atoms in the resulting structure are listed in Table 4.

(3) The interaction energies (E_{interact}) for the molecules in a basis set for the KA receptor were calculated as in equation 1.

$$E_{\text{interact}} = E_{\text{receptor + ligand}} - (E_{\text{receptor}} + E_{\text{ligand}}) \quad (\text{Eq. 1})$$

The energies of the protein (E_{receptor}) and the individual molecules (E_{molecule}) were calculated using the protein modeling package "Quanta v4.0". Members of the KA receptor basis set were chosen to reflect the natural ligands of these receptors and the most potent of synthetic ligands. The

individual members of the basis set, compounds 1-10 in Figure 4. The basis set molecules were modeled in a fully ionized state. Individual molecules were placed within close proximity (2- to 3 Å) of the expected binding pocket and the receptor/molecule complex was re-minimized. For each of these antagonists, the conformation and orientation of the molecule within the binding pocket was systematically adjusted and the complex re-minimized. Only the lowest energy structure was retained after each iteration. Each ligand was also fully minimized in the absence of the receptor model. Additionally, a conformational analysis of each of the ligands was performed in order to estimate the conformational flexibility of each species. Earlier work had suggested that while the *threo*-4-alkyl glutamates were conformationally mobile in aqueous solution at room temperature, the backbone ¹H-¹H coupling constants suggested that rotation around the C₃-C₄ bond was considerably retarded. Thus, each of the *erythro* ligands was assigned one less rotatable bond than its *threo* counterpart. Kainic acid was assigned two rotatable bonds on the basis of free rotation around the pseudo C₃-C₄ bond and free rotation of the isopropenyl side chain. The resulting minimum energy was used for E_{receptor + ligand} in equation 1. The E_{interact} for each molecule in the basis set is shown in Table 2.

Table 2 - KA receptor model basis set data

Ligand	IC ₅₀ (³ [H]KA) (μ M)	p(IC ₅₀)	E _{interact}	Rot. Bonds	Predicted (p(IC ₅₀))	Residual
1: L-Glu	0.42	6.38	-137.2	2	6.14	+0.24
2: kainic	0.020	7.70	-146.1	2	7.25	+0.45
3: 2081	0.045	7.46	-135.5	1	6.89	+0.46
4: 2048	3.00	5.52	-130.9	2	5.36	+0.16
5: 2077	1.34	5.87	-134.5	1	6.77	-0.90
6: 2047	3.00	5.52	-135.0	2	5.87	-0.33
7: 2084	2.80	5.55	-133.8	2	5.72	-0.18
8: 2072	20.0	4.70	-136.9	3	5.14	-0.44
9: 2194	32.0	4.50	-125.0	2	4.62	-0.12
10: 2139	100	4.00	-120.3	2	4.03	-0.03
11: 2114	300	3.50	-115.4	2	3.42	+0.08
12: 2116	3.10	5.51	-127.1	2	4.88	+0.63
13: 2083	1.51	5.82	-144.4	3	6.10	-0.28

(4) The volume of the ligands was computed employing a 0.5 Å grid overlaying the van der Waals surface of the final bound conformation of the individual species. Regression analysis of this data with the observed affinity of these ligands gives the relationship in equation 6, which is the predictive equation for the GluR6 model.

$$\text{GluR6 Affinity} = -0.125E_{\text{interact}} - 0.963\text{Rot}_{\text{bonds}} - 9.063 \quad (\text{Eq. 6})$$

The predictive equation was used to calculate a predicted affinity for each of the basis set molecules. Measures of affinity (both actual and as calculated), volume, and the number of interacting rotatable bonds for each of the molecules in the basis set are shown in Table 2.

(5) The interaction energy ($E_{\text{interact (SYM 2083)}}$) for SYM 2083, shown as compound 3 in Figure 4, was calculated as in Equation 7. The energies of the protein (E_{receptor}) and SYM 2083 ($E_{\text{SYM 2083}}$) were calculated using the protein modeling package. The novel molecule SYM 2083 was modeled in a fully ionized state. SYM 2083 was placed within close proximity (2 to 3 Å) of the expected binding pocket, and the receptor/SYM 2083 complex was re-minimized. The conformation and orientation of SYM 2083 within the binding pocket was systematically adjusted and the complex re-minimized. Only the lowest energy structure was retained after each iteration.

$$E_{\text{interact (SYM 2083)}} = E_{\text{receptor + SYM 2083}} - (E_{\text{receptor}} + E_{\text{SYM 2083}}) \quad (\text{Eq. 7})$$

(6) The volume of SYM 2083 was computed employing a 0.5 Å grid overlaying the van der Waals surface of the final bound conformation of the individual species. Rotatable bonds for SYM 2083 were assessed as those bonds whose position in the bound complex were necessarily fixed by interactions with the protein surface. The results were inserted into equation 6 and the resulting affinity for protein binding calculated. The calculated affinity ($p(\text{IC}_{50})$) was 6.10 and the experimentally determined affinity ($p(\text{IC}_{50})$) was 5.82.

Example 3: NMDA Receptor Glutamate Site

The following example illustrates application of the disclosed method to a glutamate site on an NMDA receptor.

(1) Alignment of LAOBP and the NMDA receptor NR2-B was determined in a manner similar to that suggested by Stern-Bach *et al.* The resulting alignment is shown in Figure 5. A topographical model based upon the known crystal structure of LAOBP was then constructed. The model was constructed employing the protein modeling package of "Quanta v4.0" (Molecular Simulations Incorporated). Those regions hypothesized to adopt a secondary structure homologous to LAOBP were modeled by duplicating those regions of the template protein. Conversely, those sequences of NR2-B that were additional to the basic template structure were analyzed according to the standard algorithms for predicting protein secondary structure. These sequences were subsequently modeled by comparison to a protein structural library and annealed onto the existing framework.

(2) The complete model was fully minimized using the adopted-basis set Newton-Raphson algorithm at a dielectric constant of 1, initially holding the peptide backbone rigid (until r.m.s. difference was less than 0.01 Å), and then without any atomic constraints. L-glutamate was chosen as a representative high affinity ligand. It was manually placed in the binding pocket of the NR2-B model and minimized until the r.m.s. was less than 0.001 Å. Semi-systematic adjustment of the L-glutamate residues contacting the lining of the pocket and the individual side chain conformations was performed by manual pairing of the charged residues, followed by repeated minimization until a consistent low energy solution was attained. The coordinates of the atoms in the resulting structure are listed in Table 5.

(3) The interaction energies (E_{interact}) for the individual molecules can be calculated as in equation 1. The energies of the protein (E_{receptor}) and the individual molecules (E_{molecule}) can be calculated using the protein modeling package "Quanta v4.0". Members of the NR2 receptor basis set are chosen to reflect the natural ligands of these receptors and the most potent of our initial synthetic ligands. The individual members of the basis set can be primarily chosen in order to expand the range of ligands

covered by this approach and to aid in the design of novel ligands. The basis set of molecules can be modeled in a fully ionized state. Individual molecules can be placed within close proximity (2 to 3 Å) of the expected binding pocket, and the receptor/molecule complex re-minimized. For each basis set molecule the conformation and orientation of the molecule within the binding pocket can be systematically adjusted and the complex re-minimized. Only the lowest energy structure is retained. The resulting minimum energy can be used for $E_{\text{receptor} + \text{ligand}}$ in equation 1.

$$E_{\text{interact}} = E_{\text{receptor} + \text{molecule}} - (E_{\text{receptor}} + E_{\text{molecule}}) \quad (\text{Eq. 1})$$

(4) The volume of the ligands can be computed employing a 0.5 Å grid overlaying the van der Waals surface of the final bound conformation of the individual species. Regression of this data with the observed affinity of these ligands will give a predictive equation for the NR2 model (Equation 8).

$$\text{NR2 Affinity} = -xE_{\text{interact}} + y\text{Vol}_{\text{ligand}} - z\text{Rot}_{\text{bonds}} + N \quad (\text{Eq. 8})$$

(5) The interaction energy (E_{interact}^*) for a potential ligand molecule can be calculated as in Equation 3.

$$E_{\text{interact}}^* = E_{\text{receptor} + \text{molecule}} - (E_{\text{receptor}} + E_{\text{molecule}}^*) \quad (\text{Eq. 3})$$

The energies of the protein (E_{receptor}) and the potential ligand molecule (E_{molecule}^*) can be calculated using the protein modeling package. The potential ligand molecule can be modeled in a fully ionized state, placed within close proximity (2 to 3 Å) of the expected binding pocket, and the receptor/molecule complex re-minimized. The conformation and orientation within the binding pocket can be systematically adjusted and the complex re-minimized. Only the lowest energy structure is retained after each iteration.

(6) The volume of the potential ligand molecule is computed employing a 0.5 Å grid overlaying the van der Waals surface of the final bound conformation of the individual species. Rotatable bonds for the potential ligand molecule are assessed as those bonds whose position in the bound complex were necessarily fixed by interactions with the protein

surface. The results are inserted into the predictive equation (Equation 8) and the resulting affinity for protein binding calculated.

Example 4: NMDA Receptor Glycine Site

5 The following example illustrates application of the disclosed method to a glycine site on an NMDA receptor.

(1) Alignment of LAOBP and the NMDA receptor NR1 was determined in a manner similar to that suggested by Stern-Bach *et al.* The resulting alignment is shown in Figure 5. A topographical model based upon the known crystal structure of LAOBP was then constructed. The model was constructed employing the protein modeling package of "Quanta v4.0" (Molecular Simulations Incorporated). Those regions hypothesized to adopt a secondary structure homologous to LAOBP were modeled by duplicating those regions of the template protein. Conversely, those sequences of NR1 that were additional to the basic template structure were analyzed according to the standard algorithms for predicting protein secondary structure. These sequences were subsequently modeled by comparison to a protein structural library and annealed onto the existing framework.

20 (2) The complete model was fully minimized using the adopted-basis set Newton-Raphson algorithm at a dielectric constant of 1, initially holding the peptide backbone rigid (until r.m.s. difference was less than 0.01 Å), and then without any atomic constraints. L-glycine was chosen as a representative high affinity ligand. It was manually placed in the binding pocket of the NR1 model and minimized until the r.m.s. was less than 0.001 Å. Semi-systematic adjustment of the glycine residues contacting the lining of the pocket and the individual side chain conformations was performed by manual pairing of the charged residues, followed by repeated minimization until a consistent low energy solution was attained. The coordinates of the atoms in the resulting structure are listed in Table 6.

30 (3) The interaction energies (E_{interact}) for the individual molecules can be calculated as in equation 1. The energies of the protein (E_{receptor})

and the individual molecules (E_{molecule}) can be calculated using the protein modeling package "Quanta v4.0". Members of the NR1 receptor basis set can be chosen to reflect the natural ligands of these receptors and the most potent of our initial synthetic ligands. The individual members of the basis set can be primarily chosen in order to expand the range of ligands covered by this approach and to aid in the design of novel ligands. The basis set of molecules are modeled in a fully ionized state. Individual molecules can be placed within close proximity (2 to 3 Å) of the expected binding pocket, and the receptor/molecule complex re-minimized. For each ligand the conformation and orientation of the molecule within the binding pocket can be systematically adjusted and the complex re-minimized. Only the lowest energy structure is retained. The resulting minimum energy is used for $E_{\text{receptor+ligand}}$ in equation 1.

$$E_{\text{interact}} = E_{\text{receptor+molecule}} - (E_{\text{receptor}} + E_{\text{molecule}}) \quad (\text{Eq. 1})$$

(4) The volume of the ligands can be computed employing a 0.5 Å grid overlaying the van der Waals surface of the final bound conformation of the individual species. Regression of this data with the observed affinity of these ligands will give a predictive equation for the NR1 model (Equation 9).

$$\text{NR1 Affinity} = -xE_{\text{interact}} + y\text{Vol}_{\text{ligand}} - z\text{Rot}_{\text{bonds}} + N \quad (\text{Eq. 9})$$

(5) The interaction energy (E_{interact}^*) for the potential ligand molecule can be calculated as in Equation 3.

$$E_{\text{interact}}^* = E_{\text{receptor+molecule}} - (E_{\text{receptor}} + E_{\text{molecule}}^*) \quad (\text{Eq. 3})$$

The energies of the protein (E_{receptor}) and the potential ligand molecule (E_{molecule}^*) can be calculated using the protein modeling package. The potential ligand molecule can be modeled in a fully ionized state, placed within close proximity (2 to 3 Å) of the expected binding pocket, and the receptor/molecule complex re-minimized. The conformation and orientation within the binding pocket can be systematically adjusted and the complex re-minimized. Only the lowest energy structure is retained after each iteration.

(6) The volume of the potential ligand molecule can be computed employing a 0.5 Å grid overlaying the van der Waals surface of the final bound conformation of the individual species. Rotatable bonds for the potential ligand molecule are assessed as those bonds whose position in the bound complex were necessarily fixed by interactions with the protein surface. The results can be inserted into the predictive equation (Equation 9) and the resulting affinity for protein binding calculated.

Binding Protein Model Coordinates

Coordinates of atoms in the computer models of the AMPA receptor GluR3, the NMDA receptor NR2-B, the kainate receptor GluR6, and the NMDA receptor NR1 built and revised using the disclosed method are shown in Tables 3 through 6. Table 3 shows the coordinates of 2706 atoms in the model of the AMPA receptor GluR3. Table 4 shows the coordinates of 2700 atoms in the model of the kainate receptor GluR6. Table 5 shows the coordinates of 2653 atoms in the model of the NMDA receptor NR2-B. Table 6 shows the coordinates of 2975 atoms in the model of the NMDA receptor NR1.

TABLE 3

REMARK	1	AMPA Receptor	(GluR3)	Model of the	Glutamate Binding Site				
ATOM	1	N	GLY	2	260	27.989	84.331	28.873	1.00 0.00
ATOM	2	CA	GLY	2	260	29.091	83.371	28.965	1.00 0.00
ATOM	3	C	GLY	2	260	28.491	82.067	29.445	1.00 0.00
ATOM	4	O	GLY	2	260	27.382	81.718	29.054	1.00 0.00
ATOM	5	1HT	GLY	2	260	28.083	85.110	29.561	1.00 0.00
ATOM	6	2HT	GLY	2	260	27.094	83.844	29.099	1.00 0.00
ATOM	7	3HT	GLY	2	260	27.938	84.794	27.947	1.00 0.00
ATOM	8	N	VAL	2	261	29.222	81.400	30.348	1.00 0.00
ATOM	9	CA	VAL	2	261	28.576	80.292	31.059	1.00 0.00
ATOM	10	C	VAL	2	261	28.143	80.710	32.466	1.00 0.00
ATOM	11	O	VAL	2	261	28.347	80.077	33.497	1.00 0.00
ATOM	12	CB	VAL	2	261	29.469	79.034	31.008	1.00 0.00
ATOM	13	CG1	VAL	2	261	30.809	79.223	31.728	1.00 0.00
ATOM	14	CG2	VAL	2	261	28.707	77.771	31.425	1.00 0.00
ATOM	15	H	VAL	2	261	30.126	81.727	30.628	1.00 0.00
ATOM	16	N	GLU	2	262	27.530	81.889	32.465	1.00 0.00
ATOM	17	CA	GLU	2	262	27.238	82.527	33.745	1.00 0.00
ATOM	18	C	GLU	2	262	25.883	82.158	34.305	1.00 0.00
ATOM	19	O	GLU	2	262	25.753	81.831	35.482	1.00 0.00
ATOM	20	CB	GLU	2	262	27.426	84.053	33.689	1.00 0.00
ATOM	21	CG	GLU	2	262	27.442	84.702	32.297	1.00 0.00
ATOM	22	CD	GLU	2	262	26.143	84.434	31.564	1.00 0.00
ATOM	23	OE1	GLU	2	262	26.123	83.642	30.637	1.00 0.00
ATOM	24	OE2	GLU	2	262	25.132	85.008	31.910	1.00 0.00
ATOM	25	H	GLU	2	262	27.074	82.138	31.612	1.00 0.00
ATOM	26	N	ARG	2	263	24.894	82.182	33.391	1.00 0.00
ATOM	27	CA	ARG	2	263	23.498	81.858	33.695	1.00 0.00
ATOM	28	C	ARG	2	263	23.277	80.850	34.820	1.00 0.00
ATOM	29	O	ARG	2	263	23.477	79.643	34.709	1.00 0.00
ATOM	30	CB	ARG	2	263	22.740	81.521	32.395	1.00 0.00
ATOM	31	CG	ARG	2	263	22.960	80.159	31.712	1.00 0.00
ATOM	32	CD	ARG	2	263	24.354	79.834	31.157	1.00 0.00
ATOM	33	NE	ARG	2	263	24.355	78.468	30.622	1.00 0.00
ATOM	34	CZ	ARG	2	263	24.867	78.167	29.408	1.00 0.00
ATOM	35	NH1	ARG	2	263	25.548	79.078	28.724	1.00 0.00
ATOM	36	NH2	ARG	2	263	24.675	76.964	28.886	1.00 0.00
ATOM	37	H	ARG	2	263	25.139	82.516	32.482	1.00 0.00
ATOM	38	HE	ARG	2	263	23.895	77.751	31.159	1.00 0.00
ATOM	39	1HH1	ARG	2	263	25.934	78.837	27.832	1.00 0.00
ATOM	40	2HH1	ARG	2	263	25.713	80.009	29.066	1.00 0.00
ATOM	41	1HH2	ARG	2	263	24.923	76.804	27.930	1.00 0.00
ATOM	42	2HH2	ARG	2	263	24.273	76.220	29.420	1.00 0.00
ATOM	43	N	MET	2	264	22.927	81.435	35.975	1.00 0.00
ATOM	44	CA	MET	2	264	23.177	80.656	37.187	1.00 0.00
ATOM	45	C	MET	2	264	22.253	79.480	37.450	1.00 0.00
ATOM	46	O	MET	2	264	21.036	79.608	37.534	1.00 0.00
ATOM	47	CB	MET	2	264	23.255	81.562	38.422	1.00 0.00
ATOM	48	CG	MET	2	264	21.985	82.370	38.709	1.00 0.00
ATOM	49	SD	MET	2	264	21.993	83.112	40.347	1.00 0.00
ATOM	50	CE	MET	2	264	21.960	81.587	41.306	1.00 0.00
ATOM	51	H	MET	2	264	22.725	82.417	35.964	1.00 0.00
ATOM	52	N	GLU	2	265	22.901	78.329	37.619	1.00 0.00
ATOM	53	CA	GLU	2	265	22.245	77.239	38.335	1.00 0.00
ATOM	54	C	GLU	2	265	22.798	77.230	39.745	1.00 0.00
ATOM	55	O	GLU	2	265	23.853	77.833	39.953	1.00 0.00
ATOM	56	CB	GLU	2	265	22.527	75.955	37.573	1.00 0.00
ATOM	57	CG	GLU	2	265	21.334	75.540	36.713	1.00 0.00
ATOM	58	CD	GLU	2	265	20.328	74.721	37.509	1.00 0.00
ATOM	59	OE1	GLU	2	265	19.614	73.922	36.929	1.00 0.00

ATOM	60	OE2	GLU	2	265	20.259	74.816	38.727	1.00	0.00
ATOM	61	H	GLU	2	265	23.866	78.309	37.360	1.00	0.00
ATOM	62	N	SER	2	266	22.808	76.595	40.690	1.00	0.00
ATOM	63	CA	SER	2	266	22.270	76.930	42.105	1.00	0.00
ATOM	64	C	SER	2	266	23.527	76.384	42.855	1.00	0.00
ATOM	65	O	SER	2	266	24.537	77.069	42.732	1.00	0.00
ATOM	66	CB	SER	2	266	20.862	76.873	42.725	1.00	0.00
ATOM	67	OG	SER	2	266	20.151	75.774	42.128	1.00	0.00
ATOM	68	H	SER	2	266	21.292	76.055	40.376	1.00	0.00
ATOM	69	HG	SER	2	266	19.462	76.058	41.576	1.00	0.00
ATOM	70	N	PRO	2	267	23.544	75.217	43.578	1.00	0.00
ATOM	71	CA	PRO	2	267	24.854	74.718	44.064	1.00	0.00
ATOM	72	C	PRO	2	267	25.897	74.459	42.972	1.00	0.00
ATOM	73	O	PRO	2	267	25.652	74.714	41.795	1.00	0.00
ATOM	74	CB	PRO	2	267	24.489	73.418	44.784	1.00	0.00
ATOM	75	CG	PRO	2	267	23.030	73.561	45.189	1.00	0.00
ATOM	76	CD	PRO	2	267	22.459	74.347	44.025	1.00	0.00
ATOM	77	N	ILE	2	268	27.061	73.905	43.376	1.00	0.00
ATOM	78	CA	ILE	2	268	28.146	73.483	42.471	1.00	0.00
ATOM	79	C	ILE	2	268	28.877	72.309	43.140	1.00	0.00
ATOM	80	O	ILE	2	268	28.428	71.879	44.204	1.00	0.00
ATOM	81	CB	ILE	2	268	29.041	74.711	42.174	1.00	0.00
ATOM	82	CG1	ILE	2	268	30.059	74.523	41.040	1.00	0.00
ATOM	83	CG2	ILE	2	268	29.712	75.225	43.454	1.00	0.00
ATOM	84	CD1	ILE	2	268	30.824	75.800	40.690	1.00	0.00
ATOM	85	H	ILE	2	268	27.202	73.726	44.354	1.00	0.00
ATOM	86	N	GLU	2	269	29.975	71.782	42.565	1.00	0.00
ATOM	87	CA	GLU	2	269	30.814	70.919	43.391	1.00	0.00
ATOM	88	C	GLU	2	269	32.294	71.268	43.306	1.00	0.00
ATOM	89	O	GLU	2	269	33.058	70.684	42.539	1.00	0.00
ATOM	90	CB	GLU	2	269	30.577	69.433	43.083	1.00	0.00
ATOM	91	CG	GLU	2	269	31.019	68.539	44.250	1.00	0.00
ATOM	92	CD	GLU	2	269	30.916	67.061	43.913	1.00	0.00
ATOM	93	OE1	GLU	2	269	29.896	66.604	43.423	1.00	0.00
ATOM	94	OE2	GLU	2	269	31.866	66.333	44.150	1.00	0.00
ATOM	95	H	GLU	2	269	30.258	72.005	41.634	1.00	0.00
ATOM	96	N	SER	2	270	32.690	72.248	44.138	1.00	0.00
ATOM	97	CA	SER	2	270	34.124	72.348	44.436	1.00	0.00
ATOM	98	C	SER	2	270	34.498	71.263	45.447	1.00	0.00
ATOM	99	O	SER	2	270	33.771	70.281	45.590	1.00	0.00
ATOM	100	CB	SER	2	270	34.480	73.772	44.896	1.00	0.00
ATOM	101	OG	SER	2	270	35.875	74.054	44.661	1.00	0.00
ATOM	102	H	SER	2	270	31.985	72.651	44.728	1.00	0.00
ATOM	103	HG	SER	2	270	35.942	74.210	43.722	1.00	0.00
ATOM	104	N	ALA	2	271	35.619	71.442	46.162	1.00	0.00
ATOM	105	CA	ALA	2	271	35.890	70.381	47.135	1.00	0.00
ATOM	106	C	ALA	2	271	34.803	70.275	48.204	1.00	0.00
ATOM	107	O	ALA	2	271	34.192	69.238	48.444	1.00	0.00
ATOM	108	CB	ALA	2	271	37.250	70.596	47.803	1.00	0.00
ATOM	109	H	ALA	2	271	36.176	72.271	46.077	1.00	0.00
ATOM	110	N	GLU	2	272	34.610	71.439	48.827	1.00	0.00
ATOM	111	CA	GLU	2	272	33.845	71.483	50.066	1.00	0.00
ATOM	112	C	GLU	2	272	32.335	71.544	49.939	1.00	0.00
ATOM	113	O	GLU	2	272	31.620	71.268	50.891	1.00	0.00
ATOM	114	CB	GLU	2	272	34.390	72.588	80.985	1.00	0.00
ATOM	115	CG	GLU	2	272	34.956	73.839	50.288	1.00	0.00
ATOM	116	CD	GLU	2	272	33.873	74.606	49.557	1.00	0.00
ATOM	117	OE1	GLU	2	272	33.401	75.602	50.087	1.00	0.00
ATOM	118	OE2	GLU	2	272	33.466	74.225	48.460	1.00	0.00
ATOM	119	H	GLU	2	272	34.916	72.287	48.392	1.00	0.00
ATOM	120	N	ASP	2	273	31.849	71.872	48.733	1.00	0.00
ATOM	121	CA	ASP	2	273	30.392	71.945	48.549	1.00	0.00

ATOM	122	C	ASP	2	273	29.550	70.796	49.096	1.00	0.00
ATOM	123	O	ASP	2	273	28.420	70.959	49.553	1.00	0.00
ATOM	124	CB	ASP	2	273	30.041	72.189	47.078	1.00	0.00
ATOM	125	CG	ASP	2	273	30.263	73.646	46.719	1.00	0.00
ATOM	126	OD1	ASP	2	273	31.299	73.987	46.162	1.00	0.00
ATOM	127	OD2	ASP	2	273	29.415	74.479	47.011	1.00	0.00
ATOM	128	H	ASP	2	273	32.482	72.373	48.144	1.00	0.00
ATOM	129	N	LEU	2	274	30.126	69.581	49.013	1.00	0.00
ATOM	130	CA	LEU	2	274	29.339	68.439	49.499	1.00	0.00
ATOM	131	C	LEU	2	274	29.259	68.314	51.010	1.00	0.00
ATOM	132	O	LEU	2	274	28.386	67.661	51.586	1.00	0.00
ATOM	133	CB	LEU	2	274	29.806	67.116	48.904	1.00	0.00
ATOM	134	CG	LEU	2	274	29.570	66.957	47.405	1.00	0.00
ATOM	135	CD1	LEU	2	274	30.022	65.576	46.940	1.00	0.00
ATOM	136	CD2	LEU	2	274	28.122	67.223	46.999	1.00	0.00
ATOM	137	H	LEU	2	274	31.110	59.509	48.840	1.00	0.00
ATOM	138	N	ALA	2	275	30.193	69.024	51.652	1.00	0.00
ATOM	139	CA	ALA	2	275	29.824	69.388	53.032	1.00	0.00
ATOM	140	C	ALA	2	275	28.951	70.554	53.158	1.00	0.00
ATOM	141	O	ALA	2	275	27.887	70.431	53.776	1.00	0.00
ATOM	142	CB	ALA	2	275	31.227	69.699	53.774	1.00	0.00
ATOM	143	H	ALA	2	275	30.957	69.441	51.153	1.00	0.00
ATOM	144	N	LYS	2	276	29.388	71.682	52.567	1.00	0.00
ATOM	145	CA	LYS	2	276	28.917	73.011	52.965	1.00	0.00
ATOM	146	C	LYS	2	276	27.572	73.501	52.470	1.00	0.00
ATOM	147	O	LYS	2	276	26.882	74.266	53.143	1.00	0.00
ATOM	148	CB	LYS	2	276	30.016	74.083	52.767	1.00	0.00
ATOM	149	CG	LYS	2	276	30.565	74.479	51.375	1.00	0.00
ATOM	150	CD	LYS	2	276	29.653	75.293	50.438	1.00	0.00
ATOM	151	CE	LYS	2	276	30.361	76.324	49.529	1.00	0.00
ATOM	152	NZ	LYS	2	276	31.329	75.732	48.594	1.00	0.00
ATOM	153	H	LYS	2	276	30.169	71.575	51.953	1.00	0.00
ATOM	154	1HZ	LYS	2	276	31.965	75.061	49.077	1.00	0.00
ATOM	155	2HZ	LYS	2	276	30.902	75.230	47.792	1.00	0.00
ATOM	156	3HZ	LYS	2	276	31.995	76.440	48.234	1.00	0.00
ATOM	157	N	GLN	2	277	27.207	73.065	51.255	1.00	0.00
ATOM	158	CA	GLN	2	277	25.881	73.478	50.796	1.00	0.00
ATOM	159	C	GLN	2	277	24.785	72.689	51.490	1.00	0.00
ATOM	160	O	GLN	2	277	24.409	71.601	51.067	1.00	0.00
ATOM	161	CB	GLN	2	277	25.780	73.382	49.270	1.00	0.00
ATOM	162	CG	GLN	2	277	24.403	73.689	48.657	1.00	0.00
ATOM	163	CD	GLN	2	277	24.124	75.176	48.554	1.00	0.00
ATOM	164	OE1	GLN	2	277	23.176	75.717	49.124	1.00	0.00
ATOM	165	NE2	GLN	2	277	24.965	75.821	47.738	1.00	0.00
ATOM	166	H	GLN	2	277	27.745	72.361	50.781	1.00	0.00
ATOM	167	1HE2	GLN	2	277	24.935	76.811	47.611	1.00	0.00
ATOM	168	2HE2	GLN	2	277	25.644	75.302	47.218	1.00	0.00
ATOM	169	N	THR	2	278	24.295	73.316	525.569	1.00	0.00
ATOM	170	CA	THR	2	278	23.206	72.798	53.406	1.00	0.00
ATOM	171	C	THR	2	278	22.141	71.927	52.704	1.00	0.00
ATOM	172	O	THR	2	278	21.101	72.343	52.185	1.00	0.00
ATOM	173	CB	THR	2	278	22.674	74.004	54.219	1.00	0.00
ATOM	174	OG1	THR	2	278	21.861	73.627	55.344	1.00	0.00
ATOM	175	CG2	THR	2	278	21.993	75.073	53.358	1.00	0.00
ATOM	176	H	THR	2	278	24.785	74.138	52.856	1.00	0.00
ATOM	177	HG1	THR	2	278	22.073	74.231	56.053	1.00	0.00
ATOM	178	N	GLU	2	279	22.488	70.623	53.704	1.00	0.00
ATOM	179	CA	GLU	2	279	21.927	69.631	51.778	1.00	0.00
ATOM	180	C	GLU	2	279	21.921	70.050	50.316	1.00	0.00
ATOM	181	O	GLU	2	279	21.165	70.913	49.854	1.00	0.00
ATOM	182	CB	GLU	2	279	20.592	69.032	52.246	1.00	0.00
ATOM	183	CG	GLU	2	279	20.020	67.960	51.297	1.00	0.00

ATOM	184	CD	GLU	2	279	19.094	68.609	50.283	1.00	0.00
ATOM	185	OE1	GLU	2	279	17.986	68.942	50.650	1.00	0.00
ATOM	186	OE2	GLU	2	279	19.453	68.826	49.136	1.00	0.00
ATOM	187	H	GLU	2	279	23.386	70.431	53.090	1.00	0.00
ATOM	188	N	ILE	2	280	22.841	69.363	49.644	1.00	0.00
ATOM	189	CA	ILE	2	280	23.110	69.499	48.222	1.00	0.00
ATOM	190	C	ILE	2	280	22.881	68.131	47.609	1.00	0.00
ATOM	191	O	ILE	2	280	23.606	67.168	47.852	1.00	0.00
ATOM	192	CB	ILE	2	280	24.552	70.013	48.043	1.00	0.00
ATOM	193	CG1	ILE	2	280	25.030	70.009	46.592	1.00	0.00
ATOM	194	CG2	ILE	2	280	25.547	69.269	48.951	1.00	0.00
ATOM	195	CD1	ILE	2	280	26.420	70.634	46.463	1.00	0.00
ATOM	196	H	ILE	2	280	23.311	68.638	50.148	1.00	0.00
ATOM	197	N	ALA	2	281	21.785	68.037	46.859	1.00	0.00
ATOM	198	CA	ALA	2	281	21.440	66.669	46.493	1.00	0.00
ATOM	199	C	ALA	2	281	22.028	66.231	45.172	1.00	0.00
ATOM	200	O	ALA	2	281	21.326	66.073	44.167	1.00	0.00
ATOM	201	CB	ALA	2	281	19.928	66.465	46.493	1.00	0.00
ATOM	202	H	ALA	2	281	21.266	68.813	46.512	1.00	0.00
ATOM	203	N	TYR	2	282	23.364	66.058	45.210	1.00	0.00
ATOM	204	CA	TYR	2	282	23.982	65.503	44.012	1.00	0.00
ATOM	205	C	TYR	2	282	23.504	64.093	43.724	1.00	0.00
ATOM	206	O	TYR	2	282	22.951	63.394	44.575	1.00	0.00
ATOM	207	CB	TYR	2	282	25.515	65.707	44.029	1.00	0.00
ATOM	208	CG	TYR	2	282	26.364	64.515	44.435	1.00	0.00
ATOM	209	CD1	TYR	2	282	26.981	63.765	43.414	1.00	0.00
ATOM	210	CD2	TYR	2	282	26.562	64.209	45.798	1.00	0.00
ATOM	211	CE1	TYR	2	282	27.851	62.717	43.759	1.00	0.00
ATOM	212	CE2	TYR	2	282	27.441	63.165	46.144	1.00	0.00
ATOM	213	CZ	TYR	2	282	28.084	62.436	45.120	1.00	0.00
ATOM	214	OH	TYR	2	282	28.959	61.406	45.442	1.00	0.00
ATOM	215	H	TYR	2	282	23.773	66.009	46.120	1.00	0.00
ATOM	216	HH	TYR	2	282	29.388	61.649	46.270	1.00	0.00
ATOM	217	N	GLY	2	283	23.667	63.706	42.474	1.00	0.00
ATOM	218	CA	GLY	2	283	22.968	62.498	42.089	1.00	0.00
ATOM	219	C	GLY	2	283	23.562	62.006	40.818	1.00	0.00
ATOM	220	O	GLY	2	283	24.474	62.628	40.270	1.00	0.00
ATOM	221	H	GLY	2	283	24.147	64.280	41.815	1.00	0.00
ATOM	222	N	THR	2	284	23.015	60.879	40.380	1.00	0.00
ATOM	223	CA	THR	2	284	23.772	60.075	39.428	1.00	0.00
ATOM	224	C	THR	2	284	22.893	59.153	38.616	1.00	0.00
ATOM	225	O	THR	2	284	21.764	58.788	38.984	1.00	0.00
ATOM	226	CB	THR	2	284	24.852	59.288	40.200	1.00	0.00
ATOM	227	OG1	THR	2	284	25.764	58.575	39.343	1.00	0.00
ATOM	228	CG2	THR	2	284	24.250	58.343	41.251	1.00	0.00
ATOM	229	H	THR	2	284	22.167	60.561	50.802	1.00	0.00
ATOM	230	HG1	THR	2	284	25.479	57.664	39.436	1.00	0.00
ATOM	231	N	LEU	2	285	23.500	58.725	37.486	1.00	0.00
ATOM	232	CA	LEU	2	285	22.981	57.583	36.732	1.00	0.00
ATOM	233	C	LEU	2	285	22.958	56.318	37.570	1.00	0.00
ATOM	234	O	LEU	2	285	23.981	55.684	37.816	1.00	0.00
ATOM	235	CB	LEU	2	285	23.753	57.355	35.416	1.00	0.00
ATOM	236	CG	LEU	2	285	25.273	57.109	35.479	1.00	0.00
ATOM	237	CD1	LEU	2	285	25.726	56.206	34.332	1.00	0.00
ATOM	238	CD2	LEU	2	285	26.110	58.390	35.534	1.00	0.00
ATOM	239	H	LEU	2	285	24.324	59.245	37.263	1.00	0.00
ATOM	240	N	ASP	2	286	21.747	56.017	38.047	1.00	0.00
ATOM	241	CA	ASP	2	286	21.498	54.892	39.940	1.00	0.00
ATOM	242	C	ASP	2	286	22.270	53.604	38.675	1.00	0.00
ATOM	243	O	ASP	2	286	22.712	52.962	39.626	1.00	0.00
ATOM	244	CB	ASP	2	286	19.987	54.611	39.002	1.00	0.00
ATOM	245	CG	ASP	2	286	19.212	55.566	39.912	1.00	0.00

ATOM	246	OD1	ASP	2	286	19.369	56.781	39.852	1.00	0.00
ATOM	247	OD2	ASP	2	286	18.404	55.090	40.695	1.00	0.00
ATOM	248	H	ASP	2	286	20.999	56.664	37.947	1.00	0.00
ATOM	249	N	SER	2	287	22.380	53.245	37.377	1.00	0.00
ATOM	250	CA	SER	2	287	23.007	51.964	37.030	1.00	0.00
ATOM	251	C	SER	2	287	24.504	51.867	37.330	1.00	0.00
ATOM	252	O	SER	2	287	25.076	50.802	37.554	1.00	0.00
ATOM	253	CB	SER	2	287	22.802	51.615	35.536	1.00	0.00
ATOM	254	OG	SER	2	287	21.462	51.866	35.069	1.00	0.00
ATOM	255	H	SER	2	287	22.187	53.919	36.661	1.00	0.00
ATOM	256	HG	SER	2	287	20.999	52.147	35.855	1.00	0.00
ATOM	257	N	GLY	2	288	25.167	53.031	37.230	1.00	0.00
ATOM	258	CA	GLY	2	288	26.626	52.984	37.096	1.00	0.00
ATOM	259	C	GLY	2	288	27.377	52.478	38.312	1.00	0.00
ATOM	260	O	GLY	2	288	27.650	53.230	39.243	1.00	0.00
ATOM	261	H	GLY	2	288	24.628	53.877	37.232	1.00	0.00
ATOM	262	N	SER	2	289	27.719	51.171	38.290	1.00	0.00
ATOM	263	CA	SER	2	289	28.385	50.590	39.470	1.00	0.00
ATOM	264	C	SER	2	289	29.704	51.269	39.806	1.00	0.00
ATOM	265	O	SER	2	289	29.976	51.724	40.915	1.00	0.00
ATOM	266	CB	SER	2	289	28.590	49.078	39.285	1.00	0.00
ATOM	267	OG	SER	2	289	29.316	48.500	40.387	1.00	0.00
ATOM	268	H	SER	2	289	27.456	50.611	37.499	1.00	0.00
ATOM	269	HG	SER	2	289	28.731	48.548	41.142	1.00	0.00
ATOM	270	N	THR	2	290	30.526	51.368	38.759	1.00	0.00
ATOM	271	CA	THR	2	290	31.748	52.134	38.962	1.00	0.00
ATOM	272	C	THR	2	290	31.539	53.581	39.389	1.00	0.00
ATOM	273	O	THR	2	290	32.361	54.179	40.073	1.00	0.00
ATOM	274	CB	THR	2	290	32.627	52.021	37.719	1.00	0.00
ATOM	275	OG1	THR	2	290	31.837	51.651	36.571	1.00	0.00
ATOM	276	CG2	THR	2	290	33.738	50.994	37.944	1.00	0.00
ATOM	277	H	THR	2	290	30.222	51.165	37.830	1.00	0.00
ATOM	278	HG1	THR	2	290	32.377	51.096	35.999	1.00	0.00
ATOM	279	N	LYS	2	2901	30.392	54.153	38.992	1.00	0.00
ATOM	280	CA	LYS	2	2901	30.094	55.503	39.487	1.00	0.00
ATOM	281	C	LYS	2	2901	29.635	55.560	40.940	1.00	0.00
ATOM	282	O	LYS	2	2901	29.947	56.483	41.678	1.00	0.00
ATOM	283	CB	LYS	2	2901	29.128	56.262	38.566	1.00	0.00
ATOM	284	CG	LYS	2	2901	29.702	56.615	37.185	1.00	0.00
ATOM	285	CD	LYS	2	2901	29.647	55.485	36.151	1.00	0.00
ATOM	286	CE	LYS	2	2901	30.302	55.839	34.814	1.00	0.00
ATOM	287	NZ	LYS	2	2901	31.765	55.879	34.951	1.00	0.00
ATOM	288	H	LYS	2	2901	29.714	53.581	38.523	1.00	0.00
ATOM	289	1HZ	LYS	2	2901	32.233	56.069	34.047	1.00	0.00
ATOM	290	2HZ	LYS	2	2901	32.081	56.627	35.591	1.00	0.00
ATOM	291	3HZ	LYS	2	2901	32.185	55.008	35.303	1.00	0.00
ATOM	292	N	GLU	2	291	28.945	54.474	41.341	1.00	0.00
ATOM	293	CA	GLU	2	291	28.532	54.306	42.737	1.00	0.00
ATOM	294	C	GLU	2	291	29.727	54.367	43.675	1.00	0.00
ATOM	295	O	GLU	2	291	29.695	54.985	44.732	1.00	0.00
ATOM	296	CB	GLU	2	291	27.761	52.982	42.873	1.00	0.00
ATOM	297	CG	GLU	2	291	26.958	52.724	44.160	1.00	0.00
ATOM	298	CD	GLU	2	291	27.841	52.600	45.391	1.00	0.00
ATOM	299	OE1	GLU	2	291	27.557	53.263	46.380	1.00	0.00
ATOM	300	OE2	GLU	2	291	28.820	51.862	45.380	1.00	0.00
ATOM	301	H	GLU	2	291	28.838	53.748	40.663	1.00	0.00
ATOM	302	N	PHE	2	292	30.799	53.720	43.178	1.00	0.00
ATOM	303	CA	PHE	2	292	32.086	53.928	43.833	1.00	0.00
ATOM	304	C	PHE	2	292	32.600	55.351	43.688	1.00	0.00
ATOM	305	O	PHE	2	292	32.199	56.151	44.619	1.00	0.00
ATOM	306	CB	PHE	2	292	33.131	52.899	43.368	1.00	0.00
ATOM	307	CG	PHE	2	292	32.589	51.486	43.412	1.00	0.00

ATOM	308	CD1	PHE	2	292	32.575	50.730	42.221	1.00	0.00
ATOM	309	CD2	PHE	2	292	32.109	50.943	44.625	1.00	0.00
ATOM	310	CE1	PHE	2	292	32.055	49.422	42.233	1.00	0.00
ATOM	311	CE2	PHE	2	292	31.587	49.635	44.641	1.00	0.00
ATOM	312	CZ	PHE	2	292	31.558	48.891	43.442	1.00	0.00
ATOM	313	H	PHE	2	292	60.681	53.226	42.313	1.00	0.00
ATOM	314	N	PHE	2	293	33.113	55.616	42.468	1.00	0.00
ATOM	315	CA	PHE	2	293	33.979	56.765	42.193	1.00	0.00
ATOM	316	C	PHE	2	293	33.633	58.054	42.925	1.00	0.00
ATOM	317	O	PHE	2	293	34.204	58.388	43.958	1.00	0.00
ATOM	318	CB	PHE	2	293	34.072	56.947	40.667	1.00	0.00
ATOM	319	CG	PHE	2	293	35.180	57.893	40.263	1.00	0.00
ATOM	320	CD1	PHE	2	293	34.846	59.172	39.767	1.00	0.00
ATOM	321	CD2	PHE	2	293	36.527	47.482	40.372	1.00	0.00
ATOM	322	CE1	PHE	2	293	35.870	60.052	39.368	1.00	0.00
ATOM	323	CE2	PHE	2	293	37.553	58.361	39.974	1.00	0.00
ATOM	324	CZ	PHE	2	293	37.214	59.636	39.472	1.00	0.00
ATOM	325	H	PHE	2	293	32.949	54.926	41.766	1.00	0.00
ATOM	326	N	ARG	2	294	32.632	58.759	42.373	1.00	0.00
ATOM	327	CA	ARG	2	294	32.265	60.046	42.969	1.00	0.00
ATOM	328	C	ARG	2	294	31.877	59.981	44.442	1.00	0.00
ATOM	329	O	ARG	2	294	32.233	60.840	45.248	1.00	0.00
ATOM	330	CB	ARG	2	294	31.185	60.741	42.129	1.00	0.00
ATOM	331	CG	ARG	2	294	31.156	62.270	42.283	1.00	0.00
ATOM	332	CD	ARG	2	294	32.400	62.957	41.708	1.00	0.00
ATOM	333	NE	ARG	2	294	32.390	64.400	41.952	1.00	0.00
ATOM	334	CZ	ARG	2	294	33.419	65.174	41.524	1.00	0.00
ATOM	335	NH1	ARG	2	294	33.445	66.439	41.891	1.00	0.00
ATOM	336	NH2	ARG	2	294	34.400	64.693	40.757	1.00	0.00
ATOM	337	H	ARG	2	294	32.123	58.395	41.600	1.00	0.00
ATOM	338	HE	ARG	2	294	31.655	64.819	42.507	1.00	0.00
ATOM	339	1HH1	ARG	2	294	34.186	67.045	41.616	1.00	0.00
ATOM	340	2HH1	ARG	2	294	32.712	66.787	42.483	1.00	0.00
ATOM	341	1HH2	ARG	2	294	34.323	63.790	40.345	1.00	0.00
ATOM	342	2HH2	ARG	2	294	35.215	65.268	40.614	1.00	0.00
ATOM	343	N	ARG	2	295	31.175	58.888	44.788	1.00	0.00
ATOM	344	CA	ARG	2	295	30.829	58.695	46.200	1.00	0.00
ATOM	345	C	ARG	2	295	31.999	58.531	47.171	1.00	0.00
ATOM	346	O	ARG	2	295	31.906	58.823	48.365	1.00	0.00
ATOM	347	CB	ARG	2	295	29.797	57.566	46.302	1.00	0.00
ATOM	348	CG	ARG	2	295	29.245	57.202	47.687	1.00	0.00
ATOM	349	CD	ARG	2	295	30.019	56.113	48.436	1.00	0.00
ATOM	350	NE	ARG	2	295	29.886	54.810	47.786	1.00	0.00
ATOM	351	CZ	ARG	2	295	30.945	54.128	47.324	1.00	0.00
ATOM	352	NH1	ARG	2	295	30.742	52.903	46.878	1.00	0.00
ATOM	353	NH2	ARG	2	295	32.161	54.668	47.312	1.00	0.00
ATOM	354	H	ARG	2	295	30.931	58.229	44.077	1.00	0.00
ATOM	355	HE	ARG	2	295	29.003	54.347	47.661	1.00	0.00
ATOM	356	1HH1	ARG	2	295	31.467	52.248	46.680	1.00	0.00
ATOM	357	2HH1	ARG	2	295	29.786	52.606	46.720	1.00	0.00
ATOM	358	1HH2	ARG	2	295	32.948	54.187	46.928	1.00	0.00
ATOM	359	2HH2	ARG	2	295	32.310	55.591	47.668	1.00	0.00
ATOM	360	N	SER	2	296	33.131	58.065	46.626	1.00	0.00
ATOM	361	CA	SER	2	296	34.260	57.764	47.512	1.00	0.00
ATOM	362	C	SER	2	296	34.869	58.924	48.300	1.00	0.00
ATOM	363	O	SER	2	296	35.612	58.735	49.261	1.00	0.00
ATOM	364	CB	SER	2	296	35.296	56.934	46.754	1.00	0.00
ATOM	365	OG	SER	2	296	34.608	55.845	46.096	1.00	0.00
ATOM	366	H	SER	2	296	33.146	57.881	45.643	1.00	0.00
ATOM	367	HG	SER	2	296	34.395	56.177	45.217	1.00	0.00
ATOM	368	N	LYS	2	297	34.438	60.139	47.916	1.00	0.00
ATOM	369	CA	LYS	2	297	34.660	61.363	48.681	1.00	0.00

ATOM	370	C	LYS	2	297	34.436	61.225	50.186	1.00	0.00
ATOM	371	O	LYS	2	297	35.230	61.701	50.983	1.00	0.00
ATOM	372	CB	LYS	2	297	33.829	52.471	48.020	1.00	0.00
ATOM	373	CG	LYS	2	297	34.223	63.921	48.318	1.00	0.00
ATOM	374	CD	LYS	2	297	33.804	64.829	47.153	1.00	0.00
ATOM	375	CE	LYS	2	297	34.072	66.324	47.361	1.00	0.00
ATOM	376	NZ	LYS	2	297	33.055	66.888	48.250	1.00	0.00
ATOM	377	H	LYS	2	297	33.888	60.186	47.087	1.00	0.00
ATOM	378	1HZ	LYS	2	297	32.862	66.272	49.065	1.00	0.00
ATOM	379	2HZ	LYS	2	297	33.404	67.770	48.686	1.00	0.00
ATOM	380	3HZ	LYS	2	297	32.157	67.089	47.767	1.00	0.00
ATOM	381	N	ILE	2	298	33.384	60.468	50.539	1.00	0.00
ATOM	382	CA	ILE	2	298	33.172	60.218	41.981	1.00	0.00
ATOM	383	C	ILE	2	298	34.255	59.388	52.672	1.00	0.00
ATOM	384	O	ILE	2	298	34.600	59.592	53.830	1.00	0.00
ATOM	385	CB	ILE	2	298	31.750	59.669	52.209	1.00	0.00
ATOM	386	CG1	ILE	2	298	31.360	59.681	53.689	1.00	0.00
ATOM	387	CG2	ILE	2	298	31.568	58.269	51.603	1.00	0.00
ATOM	388	CD1	ILE	2	298	29.886	59.336	53.917	1.00	0.00
ATOM	389	H	ILE	2	298	32.831	60.019	49.838	1.00	0.00
ATOM	390	N	ALA	2	299	34.810	58.432	51.907	1.00	0.00
ATOM	391	CA	ALA	2	299	35.835	57.551	52.474	1.00	0.00
ATOM	392	C	ALA	2	299	37.203	58.198	52.590	1.00	0.00
ATOM	393	O	ALA	2	299	37.986	57.932	53.496	1.00	0.00
ATOM	394	CB	ALA	2	299	35.957	56.272	51.644	1.00	0.00
ATOM	395	H	ALA	2	299	34.555	58.334	50.947	1.00	0.00
ATOM	396	N	VAL	2	300	37.449	59.113	51.643	1.00	0.00
ATOM	397	CA	VAL	2	300	38.522	60.069	51.905	1.00	0.00
ATOM	398	C	VAL	2	300	37.920	61.305	52.554	1.00	0.00
ATOM	399	O	VAL	2	300	37.738	52.337	51.918	1.00	0.00
ATOM	400	CB	VAL	2	300	39.273	60.411	50.608	1.00	0.00
ATOM	401	CG1	VAL	2	300	40.550	61.211	50.893	1.00	0.00
ATOM	402	CG2	VAL	2	300	39.583	59.151	49.794	1.00	0.00
ATOM	403	H	VAL	2	300	36.828	59.223	50.868	1.00	0.00
ATOM	404	N	TYR	2	301	37.542	61.087	53.825	1.00	0.00
ATOM	405	CA	TYR	2	301	36.597	61.901	54.603	1.00	0.00
ATOM	406	C	TYR	2	301	36.372	63.395	54.374	1.00	0.00
ATOM	407	O	TYR	2	301	36.581	64.209	55.275	1.00	0.00
ATOM	408	CB	TYR	2	301	36.816	61.647	56.101	1.00	0.00
ATOM	409	CG	TYR	2	301	36.279	60.295	56.519	1.00	0.00
ATOM	410	CD1	TYR	2	301	37.163	59.202	56.629	1.00	0.00
ATOM	411	CD2	TYR	2	301	34.903	60.170	56.804	1.00	0.00
ATOM	412	CE1	TYR	2	301	36.663	57.959	57.056	1.00	0.00
ATOM	413	CE2	TYR	2	301	34.402	58.926	57.222	1.00	0.00
ATOM	414	CZ	TYR	2	301	35.290	57.840	57.356	1.00	0.00
ATOM	415	OH	TYR	2	301	34.795	56.627	57.804	1.00	0.00
ATOM	416	H	TYR	2	301	37.815	60.200	54.197	1.00	0.00
ATOM	417	HH	TYR	2	301	35.421	56.250	58.417	1.00	0.00
ATOM	418	N	GLU	2	302	35.833	63.716	53.190	1.00	0.00
ATOM	419	CA	GLU	2	302	34.943	64.873	53.164	1.00	0.00
ATOM	420	C	GLU	2	302	33.539	64.323	53.615	1.00	0.00
ATOM	421	O	GLU	2	302	33.289	63.170	52.963	1.00	0.00
ATOM	422	CB	GLU	2	302	35.149	65.690	51.879	1.00	0.00
ATOM	423	CG	GLU	2	302	34.482	67.078	51.885	1.00	0.00
ATOM	424	CD	GLU	2	302	33.216	67.115	51.041	1.00	0.00
ATOM	425	OE1	GLU	2	302	32.860	68.171	50.540	1.00	0.00
ATOM	426	OE2	GLU	2	302	32.581	66.097	50.813	1.00	0.00
ATOM	427	H	GLU	2	302	35.880	63.072	52.426	1.00	0.00
ATOM	428	N	LYS	2	303	32.647	65.135	53.908	1.00	0.00
ATOM	429	CA	LYS	2	303	31.351	64.595	54.322	1.00	0.00
ATOM	430	C	LYS	2	303	30.584	63.858	53.232	1.00	0.00
ATOM	431	O	LYS	2	303	30.059	62.767	53.437	1.00	0.00

ATOM	432	CB	LYS	2	303	30.512	65.703	54.978	1.00	0.00
ATOM	433	CG	LYS	2	303	29.155	65.246	55.533	1.00	0.00
ATOM	434	CD	LYS	2	303	27.983	65.801	54.720	1.00	0.00
ATOM	435	CE	LYS	2	303	27.837	67.309	54.903	1.00	0.00
ATOM	436	NZ	LYS	2	303	27.006	67.885	53.840	1.00	0.00
ATOM	437	H	LYS	2	303	32.971	66.061	54.092	1.00	0.00
ATOM	438	1HZ	LYS	2	303	27.406	67.678	52.903	1.00	0.00
ATOM	439	2HZ	LYS	2	303	26.054	67.481	53.894	1.00	0.00
ATOM	440	3HZ	LYS	2	303	26.993	68.921	53.937	1.00	0.00
ATOM	441	N	MET	2	304	30.558	64.512	52.063	1.00	0.00
ATOM	442	CA	MET	2	304	29.870	64.040	50.859	1.00	0.00
ATOM	443	C	MET	2	304	28.349	64.030	50.863	1.00	0.00
ATOM	444	O	MET	2	304	27.735	64.443	49.879	1.00	0.00
ATOM	445	CB	MET	2	304	30.398	62.694	50.358	1.00	0.00
ATOM	446	CG	MET	2	304	29.915	62.406	48.938	1.00	0.00
ATOM	447	SD	MET	2	304	29.810	60.658	48.586	1.00	0.00
ATOM	448	CE	MET	2	304	28.597	60.203	49.831	1.00	0.00
ATOM	449	H	MET	2	304	31.067	65.371	51.993	1.00	0.00
ATOM	450	N	TRP	2	305	27.790	63.526	51.982	1.00	0.00
ATOM	451	CA	TRP	2	305	26.370	63.230	52.140	1.00	0.00
ATOM	452	C	TRP	2	305	25.942	62.087	51.242	1.00	0.00
ATOM	453	O	TRP	2	305	26.016	62.164	50.017	1.00	0.00
ATOM	454	CB	TRP	2	305	25.508	64.496	51.966	1.00	0.00
ATOM	455	CG	TRP	2	305	24.065	64.246	52.338	1.00	0.00
ATOM	456	CD1	TRP	2	305	23.567	63.888	53.601	1.00	0.00
ATOM	457	CD2	TRP	2	305	22.909	64.320	51.477	1.00	0.00
ATOM	458	NE1	TRP	2	305	22.215	63.740	53.575	1.00	0.00
ATOM	459	CE2	TRP	2	305	21.764	63.996	52.281	1.00	0.00
ATOM	460	CE3	TRP	2	305	22.749	64.627	50.109	1.00	0.00
ATOM	461	CZ2	TRP	2	305	20.480	63.984	51.695	1.00	0.00
ATOM	462	CZ3	TRP	2	305	21.460	64.611	49.538	1.00	0.00
ATOM	463	CH2	TRP	2	305	20.332	64.291	50.325	1.00	0.00
ATOM	464	H	TRP	2	305	28.425	63.168	52.656	1.00	0.00
ATOM	465	HE1	TRP	2	305	21.643	63.522	54.345	1.00	0.00
ATOM	466	N	SER	2	306	25.472	61.008	51.890	1.00	0.00
ATOM	467	CA	SER	2	306	24.819	60.017	51.040	1.00	0.00
ATOM	468	C	SER	2	306	23.575	60.587	50.418	1.00	0.00
ATOM	469	O	SER	2	306	22.826	61.335	51.038	1.00	0.00
ATOM	470	CB	SER	2	306	24.564	58.715	51.778	1.00	0.00
ATOM	471	OG	SER	2	306	25.848	58.179	52.135	1.00	0.00
ATOM	472	H	SER	2	306	25.352	61.048	52.876	1.00	0.00
ATOM	473	HG	SER	2	306	26.425	58.942	52.074	1.00	0.00
ATOM	474	N	TYR	2	307	53.542	60.305	49.131	1.00	0.00
ATOM	475	CA	TYR	2	307	22.789	61.041	48.132	1.00	0.00
ATOM	476	C	TYR	2	307	22.098	59.957	47.345	1.00	0.00
ATOM	477	O	TYR	2	307	22.122	58.802	47.777	1.00	0.00
ATOM	478	CB	TYR	2	307	23.788	61.856	47.276	1.00	0.00
ATOM	479	CG	TYR	2	307	24.746	60.990	46.461	1.00	0.00
ATOM	480	CD1	TYR	2	307	24.655	61.027	45.054	1.00	0.00
ATOM	481	CD2	TYR	2	307	25.696	60.168	47.106	1.00	0.00
ATOM	482	CE1	TYR	2	307	25.494	60.209	44.279	1.00	0.00
ATOM	483	CE2	TYR	2	307	26.524	59.336	46.337	1.00	0.00
ATOM	484	CZ	TYR	2	307	26.409	59.361	44.934	1.00	0.00
ATOM	485	OH	TYR	2	307	27.227	58.533	44.186	1.00	0.00
ATOM	486	H	TYR	2	307	24.058	59.508	48.821	1.00	0.00
ATOM	487	HH	TYR	2	307	27.719	59.115	43.610	1.00	0.00
ATOM	488	N	MET	2	308	21.585	60.316	46.157	1.00	0.00
ATOM	489	CA	MET	2	308	21.196	59.236	45.255	1.00	0.00
ATOM	490	C	MET	2	308	22.196	58.087	45.149	1.00	0.00
ATOM	491	O	MET	2	308	23.422	58.226	45.165	1.00	0.00
ATOM	492	CB	MET	2	308	20.866	59.783	43.865	1.00	0.00
ATOM	493	CG	MET	2	308	19.888	60.959	43.910	1.00	0.00

ATOM	494	SD	MET	2	308	19.528	61.631	42.281	1.00	0.00
ATOM	495	CE	MET	2	308	19.121	63.307	42.802	1.00	0.00
ATOM	496	H	MET	2	308	21.555	61.275	45.891	1.00	0.00
ATOM	497	N	LYS	2	309	21.585	56.898	45.081	1.00	0.00
ATOM	498	CA	LYS	2	309	22.342	55.679	44.798	1.00	0.00
ATOM	499	C	LYS	2	309	21.698	55.052	43.580	1.00	0.00
ATOM	500	O	LYS	2	309	21.109	55.783	42.791	1.00	0.00
ATOM	501	CB	LYS	2	309	22.337	54.753	46.021	1.00	0.00
ATOM	502	CG	LYS	2	309	23.731	54.603	46.638	1.00	0.00
ATOM	503	CD	LYS	2	309	24.264	55.907	47.236	1.00	0.00
ATOM	504	CE	LYS	2	309	25.748	55.854	47.593	1.00	0.00
ATOM	505	NZ	LYS	2	309	26.535	55.603	46.378	1.00	0.00
ATOM	506	H	LYS	2	309	20.584	56.895	45.110	1.00	0.00
ATOM	507	1HZ	LYS	2	309	26.413	54.614	46.083	1.00	0.00
ATOM	508	2HZ	LYS	2	309	26.265	56.222	45.592	1.00	0.00
ATOM	509	3HZ	LYS	2	309	27.549	55.688	46.574	1.00	0.00
ATOM	510	N	SER	2	310	21.755	53.718	43.462	1.00	0.00
ATOM	511	CA	SER	2	310	20.764	53.046	42.617	1.00	0.00
ATOM	512	C	SER	2	310	19.398	52.988	43.305	1.00	0.00
ATOM	513	O	SER	2	310	18.987	51.965	43.839	1.00	0.00
ATOM	514	CB	SER	2	310	21.264	51.633	42.285	1.00	0.00
ATOM	515	OG	SER	2	310	22.661	51.655	41.940	1.00	0.00
ATOM	516	H	SER	2	310	22.365	53.129	43.995	1.00	0.00
ATOM	517	HG	SER	2	310	22.690	51.707	40.984	1.00	0.00
ATOM	518	N	ALA	2	311	18.737	54.155	43.323	1.00	0.00
ATOM	519	CA	ALA	2	311	17.644	54.346	44.279	1.00	0.00
ATOM	520	C	ALA	2	311	16.231	53.945	43.857	1.00	0.00
ATOM	521	O	ALA	2	311	15.469	53.382	44.641	1.00	0.00
ATOM	522	CB	ALA	2	311	17.649	55.790	44.785	1.00	0.00
ATOM	523	H	ALA	2	311	19.004	54.840	42.643	1.00	0.00
ATOM	524	N	GLU	2	312	15.884	54.240	42.597	1.00	0.00
ATOM	525	CA	GLU	2	312	14.538	53.848	42.191	1.00	0.00
ATOM	526	C	GLU	2	312	14.656	52.729	41.172	1.00	0.00
ATOM	527	O	GLU	2	312	15.185	52.945	40.087	1.00	0.00
ATOM	528	CB	GLU	2	312	13.749	55.044	41.617	1.00	0.00
ATOM	529	CG	GLU	2	312	12.956	55.912	42.620	1.00	0.00
ATOM	530	CD	GLU	2	312	13.716	57.137	43.124	1.00	0.00
ATOM	531	OE1	GLU	2	312	14.834	56.999	43.604	1.00	0.00
ATOM	532	OE2	GLU	2	312	13.190	58.250	43.048	1.00	0.00
ATOM	533	H	GLU	2	312	16.556	54.565	41.932	1.00	0.00
ATOM	534	N	PRO	2	313	14.190	51.520	41.549	1.00	0.00
ATOM	535	CA	PRO	2	313	14.325	50.369	40.646	1.00	0.00
ATOM	536	C	PRO	2	313	13.242	50.430	39.568	1.00	0.00
ATOM	537	O	PRO	2	313	12.575	49.318	39.349	1.00	0.00
ATOM	538	CB	PRO	2	313	14.243	49.207	41.640	1.00	0.00
ATOM	539	CG	PRO	2	313	13.275	49.692	42.721	1.00	0.00
ATOM	540	CD	PRO	2	313	13.613	51.173	42.844	1.00	0.00
ATOM	541	N	SER	2	314	13.061	51.461	38.909	1.00	0.00
ATOM	542	CA	SER	2	314	11.891	51.632	38.056	1.00	0.00
ATOM	543	C	SER	2	314	12.052	51.203	36.606	1.00	0.00
ATOM	544	O	SER	2	314	11.918	52.010	35.687	1.00	0.00
ATOM	545	CB	SER	2	314	11.434	53.084	38.174	1.00	0.00
ATOM	546	OG	SER	2	314	12.532	53.858	38.679	1.00	0.00
ATOM	547	H	SER	2	314	13.682	52.232	39.045	1.00	0.00
ATOM	548	HG	SER	2	314	12.494	54.717	38.259	1.00	0.00
ATOM	549	N	VAL	2	315	12.290	49.887	36.485	1.00	0.00
ATOM	550	CA	VAL	2	315	12.253	49.121	35.237	1.00	0.00
ATOM	551	C	VAL	2	315	13.345	49.363	34.197	1.00	0.00
ATOM	552	O	VAL	2	315	13.970	48.426	33.709	1.00	0.00
ATOM	553	CB	VAL	2	315	10.843	49.138	34.602	1.00	0.00
ATOM	554	CG1	VAL	2	315	10.717	48.145	33.442	1.00	0.00
ATOM	555	CG2	VAL	2	315	9.757	48.853	35.645	1.00	0.00

ATOM	556	H	VAL	2	315	12.470	49.399	37.341	1.00	0.00
ATOM	557	N	PHE	2	316	13.502	50.623	33.799	1.00	0.00
ATOM	558	CA	PHE	2	316	14.526	50.909	32.800	1.00	0.00
ATOM	559	C	PHE	2	316	15.444	51.993	33.297	1.00	0.00
ATOM	560	O	PHE	2	316	15.137	52.718	34.246	1.00	0.00
ATOM	561	CB	PHE	2	316	13.907	51.367	31.473	1.00	0.00
ATOM	562	CG	PHE	2	316	13.084	50.279	30.822	1.00	0.00
ATOM	563	CD1	PHE	2	316	11.706	50.500	30.611	1.00	0.00
ATOM	564	CD2	PHE	2	316	13.699	49.071	30.423	1.00	0.00
ATOM	565	CE1	PHE	2	316	10.931	49.503	29.987	1.00	0.00
ATOM	566	CE2	PHE	2	316	12.926	48.072	29.802	1.00	0.00
ATOM	567	CZ	PHE	2	316	11.549	48.299	29.589	1.00	0.00
ATOM	568	H	PHE	2	316	13.059	51.354	34.314	1.00	0.00
ATOM	569	N	THR	2	317	16.572	52.155	32.580	1.00	0.00
ATOM	570	CA	THR	2	317	17.449	53.238	33.035	1.00	0.00
ATOM	571	C	THR	2	317	16.789	54.623	33.035	1.00	0.00
ATOM	572	O	THR	2	317	16.737	55.301	34.061	1.00	0.00
ATOM	573	CB	THR	2	317	18.840	53.169	32.367	1.00	0.00
ATOM	574	OG1	THR	2	317	19.778	54.041	33.020	1.00	0.00
ATOM	575	CG2	THR	2	317	18.827	53.399	30.852	1.00	0.00
ATOM	576	H	THR	2	317	16.855	51.477	31.903	1.00	0.00
ATOM	577	HG1	THR	2	317	19.699	53.845	33.959	1.00	0.00
ATOM	578	N	LYS	2	318	16.149	54.962	31.888	1.00	0.00
ATOM	579	CA	LYS	2	318	15.389	56.221	31.815	1.00	0.00
ATOM	580	C	LYS	2	318	14.522	56.613	33.016	1.00	0.00
ATOM	581	O	LYS	2	318	14.302	57.799	33.283	1.00	0.00
ATOM	582	CB	LYS	2	318	14.572	56.276	30.506	1.00	0.00
ATOM	583	CG	LYS	2	318	13.743	57.557	30.288	1.00	0.00
ATOM	584	CD	LYS	2	318	12.238	57.373	30.548	1.00	0.00
ATOM	585	CE	LYS	2	318	11.545	58.533	31.285	1.00	0.00
ATOM	586	NZ	LYS	2	318	11.767	58.443	32.736	1.00	0.00
ATOM	587	H	LYS	2	318	16.316	54.413	31.072	1.00	0.00
ATOM	588	1HZ	LYS	2	318	11.321	59.224	33.269	1.00	0.00
ATOM	589	2HZ	LYS	2	318	11.392	57.530	33.064	1.00	0.00
ATOM	590	3HZ	LYS	2	318	12.771	58.472	32.989	1.00	0.00
ATOM	591	N	THR	2	319	14.008	55.589	33.710	1.00	0.00
ATOM	592	CA	THR	2	319	13.153	55.945	34.836	1.00	0.00
ATOM	593	C	THR	2	319	13.722	55.629	36.219	1.00	0.00
ATOM	594	O	THR	2	319	13.255	56.154	37.233	1.00	0.00
ATOM	595	CB	THR	2	319	11.744	55.403	34.554	1.00	0.00
ATOM	596	OG1	THR	2	319	11.347	55.860	33.243	1.00	0.00
ATOM	597	CG2	THR	2	319	10.680	55.835	35.569	1.00	0.00
ATOM	598	H	THR	2	319	14.268	54.637	33.532	1.00	0.00
ATOM	599	HG1	THR	2	319	10.728	55.197	32.926	1.00	0.00
ATOM	600	N	THR	2	320	14.796	54.819	36.209	1.00	0.00
ATOM	601	CA	THR	2	320	15.556	54.692	37.454	1.00	0.00
ATOM	602	C	THR	2	320	16.167	56.006	37.932	1.00	0.00
ATOM	603	O	THR	2	320	16.116	56.391	39.095	1.00	0.00
ATOM	604	CB	THR	2	320	16.623	53.593	37.324	1.00	0.00
ATOM	605	OG1	THR	2	320	17.427	53.771	36.147	1.00	0.00
ATOM	606	CG2	THR	2	320	16.008	52.193	37.270	1.00	0.00
ATOM	607	H	THR	2	320	15.165	54.463	35.355	1.00	0.00
ATOM	608	HG1	THR	2	320	17.030	53.203	35.486	1.00	0.00
ATOM	609	N	ALA	2	321	16.728	56.732	36.955	1.00	0.00
ATOM	610	CA	ALA	2	321	17.345	58.013	37.281	1.00	0.00
ATOM	611	C	ALA	2	321	16.616	59.203	36.681	1.00	0.00
ATOM	612	O	ALA	2	321	17.194	60.090	36.043	1.00	0.00
ATOM	613	CB	ALA	2	321	18.798	58.030	36.797	1.00	0.00
ATOM	614	H	ALA	2	321	16.790	56.351	36.034	1.00	0.00
ATOM	615	N	ASP	2	322	15.285	59.214	36.875	1.00	0.00
ATOM	616	CA	ASP	2	322	14.547	60.147	36.021	1.00	0.00
ATOM	617	C	ASP	2	322	14.819	61.646	36.170	1.00	0.00

ATOM	618	O	ASP	2	322	14.493	62.314	37.155	1.00	0.00
ATOM	619	CB	ASP	2	322	13.044	59.848	36.016	1.00	0.00
ATOM	620	CG	ASP	2	322	12.373	60.438	34.778	1.00	0.00
ATOM	621	OD1	ASP	2	322	11.158	60.374	34.676	1.00	0.00
ATOM	622	OD2	ASP	2	322	13.048	60.950	33.889	1.00	0.00
ATOM	623	H	ASP	2	322	14.851	58.572	37.512	1.00	0.00
ATOM	624	N	GLY	2	323	15.418	62.163	35.092	1.00	0.00
ATOM	625	CA	GLY	2	323	15.722	63.593	35.089	1.00	0.00
ATOM	626	C	GLY	2	323	14.497	64.494	35.025	1.00	0.00
ATOM	627	O	GLY	2	323	14.512	65.655	35.437	1.00	0.00
ATOM	628	H	GLY	2	323	15.572	61.604	34.276	1.00	0.00
ATOM	629	N	VAL	2	324	13.407	63.895	34.527	1.00	0.00
ATOM	630	CA	VAL	2	324	12.107	64.571	34.547	1.00	0.00
ATOM	631	C	VAL	2	324	11.493	64.657	35.941	1.00	0.00
ATOM	632	O	VAL	2	324	10.646	65.505	36.240	1.00	0.00
ATOM	633	CB	VAL	2	324	11.111	63.874	33.598	1.00	0.00
ATOM	634	CG1	VAL	2	324	9.868	64.729	33.325	1.00	0.00
ATOM	635	CG2	VAL	2	324	11.761	63.444	32.286	1.00	0.00
ATOM	636	H	VAL	2	324	13.493	62.957	34.206	1.00	0.00
ATOM	637	N	ALA	2	325	11.923	63.697	36.776	1.00	0.00
ATOM	638	CA	ALA	2	325	11.170	63.458	37.999	1.00	0.00
ATOM	639	C	ALA	2	325	11.828	63.911	39.280	1.00	0.00
ATOM	640	O	ALA	2	325	11.234	64.669	40.034	1.00	0.00
ATOM	641	CB	ALA	2	325	10.794	61.981	38.130	1.00	0.00
ATOM	642	H	ALA	2	325	12.653	63.091	36.467	1.00	0.00
ATOM	643	N	ARG	2	326	13.069	63.419	39.528	1.00	0.00
ATOM	644	CA	ARG	2	326	13.628	63.717	40.860	1.00	0.00
ATOM	645	C	ARG	2	326	13.802	65.203	41.168	1.00	0.00
ATOM	646	O	ARG	2	326	13.385	65.721	42.197	1.00	0.00
ATOM	647	CB	ARG	2	326	14.915	62.934	41.164	1.00	0.00
ATOM	648	CG	ARG	2	326	14.752	61.413	41.324	1.00	0.00
ATOM	649	CD	ARG	2	326	16.026	60.739	41.865	1.00	0.00
ATOM	650	NE	ARG	2	326	15.909	59.280	41.926	1.00	0.00
ATOM	651	CZ	ARG	2	326	16.934	58.452	41.611	1.00	0.00
ATOM	652	NH1	ARG	2	326	16.740	57.145	41.593	1.00	0.00
ATOM	653	NH2	ARG	2	326	18.129	58.926	41.279	1.00	0.00
ATOM	654	H	ARG	2	326	13.600	62.961	38.812	1.00	0.00
ATOM	655	HE	ARG	2	326	15.063	58.850	42.268	1.00	0.00
ATOM	656	1HH1	ARG	2	326	17.455	56.515	41.252	1.00	0.00
ATOM	657	2HH1	ARG	2	326	15.860	56.766	41.895	1.00	0.00
ATOM	658	1HH2	ARG	2	326	18.838	58.286	40.944	1.00	0.00
ATOM	659	2HH2	ARG	2	326	18.345	59.898	41.371	1.00	0.00
ATOM	660	N	VAL	2	327	14.348	65.905	40.176	1.00	0.00
ATOM	661	CA	VAL	2	327	14.456	67.354	40.341	1.00	0.00
ATOM	662	C	VAL	2	327	13.112	68.081	40.447	1.00	0.00
ATOM	663	O	VAL	2	327	12.989	69.177	40.993	1.00	0.00
ATOM	664	CB	VAL	2	327	15.329	67.926	39.218	1.00	0.00
ATOM	665	CG1	VAL	2	327	15.635	69.402	39.452	1.00	0.00
ATOM	666	CG2	VAL	2	327	16.624	67.125	39.067	1.00	0.00
ATOM	667	H	VAL	2	327	14.696	65.420	39.377	1.00	0.00
ATOM	668	N	ARG	2	328	12.101	67.422	39.878	1.00	0.00
ATOM	669	CA	ARG	2	328	10.750	67.952	40.004	1.00	0.00
ATOM	670	C	ARG	2	328	10.004	67.434	41.228	1.00	0.00
ATOM	671	O	ARG	2	328	8.860	67.802	41.500	1.00	0.00
ATOM	672	CB	ARG	2	328	9.986	67.679	38.711	1.00	0.00
ATOM	673	CG	ARG	2	328	8.828	68.650	38.518	1.00	0.00
ATOM	674	CD	ARG	2	328	7.971	68.337	37.301	1.00	0.00
ATOM	675	NE	ARG	2	328	6.869	69.292	37.251	1.00	0.00
ATOM	676	CZ	ARG	2	328	5.584	68.889	37.148	1.00	0.00
ATOM	677	NH1	ARG	2	328	4.610	69.793	37.117	1.00	0.00
ATOM	678	NH2	ARG	2	328	5.293	67.593	37.060	1.00	0.00
ATOM	679	H	ARG	2	328	12.230	66.487	39.553	1.00	0.00

ATOM	680	HE	ARG	2	328	7.127	70.260	37.344	1.00	0.00
ATOM	681	1HH1	ARG	2	328	3.658	69.531	36.952	1.00	0.00
ATOM	682	2HH1	ARG	2	328	4.818	70.760	37.255	1.00	0.00
ATOM	683	1HH2	ARG	2	328	4.355	67.290	36.890	1.00	0.00
ATOM	684	2HH2	ARG	2	328	6.015	66.903	37.159	1.00	0.00
ATOM	685	N	LYS	2	329	10.712	66.552	41.965	1.00	0.00
ATOM	686	CA	LYS	2	329	10.343	66.306	43.355	1.00	0.00
ATOM	687	C	LYS	2	329	10.767	37.505	44.185	1.00	0.00
ATOM	688	O	LYS	2	329	9.981	68.069	44.938	1.00	0.00
ATOM	689	CB	LYS	2	329	11.017	65.065	43.985	1.00	0.00
ATOM	690	CG	LYS	2	329	10.812	63.643	43.435	1.00	0.00
ATOM	691	CD	LYS	2	329	11.696	62.629	44.199	1.00	0.00
ATOM	692	CE	LYS	2	329	11.544	61.156	43.774	1.00	0.00
ATOM	693	NZ	LYS	2	329	12.435	60.265	44.536	1.00	0.00
ATOM	694	H	LYS	2	329	11.569	66.208	41.592	1.00	0.00
ATOM	695	1HZ	LYS	2	329	12.209	59.272	44.318	1.00	0.00
ATOM	696	2HZ	LYS	2	329	13.429	60.336	44.257	1.00	0.00
ATOM	697	3HZ	LYS	2	329	12.334	60.419	45.557	1.00	0.00
ATOM	698	N	SER	2	330	12.051	67.878	44.067	1.00	0.00
ATOM	699	CA	SER	2	330	12.451	68.765	45.158	1.00	0.00
ATOM	700	C	SER	2	330	13.141	70.058	44.802	1.00	0.00
ATOM	701	O	SER	2	330	14.362	70.108	44.769	1.00	0.00
ATOM	702	CB	SER	2	330	13.271	67.991	46.194	1.00	0.00
ATOM	703	OG	SER	2	330	13.142	66.579	45.934	1.00	0.00
ATOM	704	H	SER	2	330	12.684	67.428	43.436	1.00	0.00
ATOM	705	HG	SER	2	330	13.928	66.282	45.459	1.00	0.00
ATOM	706	N	LYS	2	331	12.312	71.100	44.585	1.00	0.00
ATOM	707	CA	LYS	2	331	12.703	72.510	44.794	1.00	0.00
ATOM	708	C	LYS	2	331	14.192	72.881	44.929	1.00	0.00
ATOM	709	O	LYS	2	331	14.751	72.833	46.024	1.00	0.00
ATOM	710	CB	LYS	2	331	11.923	72.991	46.025	1.00	0.00
ATOM	711	CG	LYS	2	331	12.034	74.464	46.428	1.00	0.00
ATOM	712	CD	LYS	2	331	11.485	74.648	47.844	1.00	0.00
ATOM	713	CE	LYS	2	331	11.626	76.066	48.398	1.00	0.00
ATOM	714	NZ	LYS	2	331	11.188	76.064	49.796	1.00	0.00
ATOM	715	H	LYS	2	331	11.353	70.845	44.465	1.00	0.00
ATOM	716	1HZ	LYS	2	331	11.139	77.040	50.148	1.00	0.00
ATOM	717	2HZ	LYS	2	331	10.253	75.620	49.844	1.00	0.00
ATOM	718	3HZ	LYS	2	331	11.842	75.508	50.381	1.00	0.00
ATOM	719	N	GLY	2	332	14.772	73.300	43.789	1.00	0.00
ATOM	720	CA	GLY	2	332	16.201	73.616	43.818	1.00	0.00
ATOM	721	C	GLY	2	332	16.985	72.335	43.981	1.00	0.00
ATOM	722	O	GLY	2	332	16.695	71.359	43.298	1.00	0.00
ATOM	723	H	GLY	2	332	14.255	73.297	42.941	1.00	0.00
ATOM	724	N	LYS	2	333	17.895	72.394	44.958	1.00	0.00
ATOM	725	CA	LYS	2	333	18.462	71.249	45.682	1.00	0.00
ATOM	726	C	LYS	2	333	18.814	69.945	44.980	1.00	0.00
ATOM	727	O	LYS	2	333	19.990	69.587	44.893	1.00	0.00
ATOM	728	CB	LYS	2	333	17.621	70.975	46.927	1.00	0.00
ATOM	729	CG	LYS	2	333	17.973	71.948	48.048	1.00	0.00
ATOM	730	CD	LYS	2	333	17.065	71.797	49.266	1.00	0.00
ATOM	731	CE	LYS	2	333	17.724	72.333	50.538	1.00	0.00
ATOM	732	NZ	LYS	2	333	18.867	71.482	50.880	1.00	0.00
ATOM	733	H	LYS	2	333	18.084	73.325	45.252	1.00	0.00
ATOM	734	1HZ	LYS	2	333	18.540	70.547	51.202	1.00	0.00
ATOM	735	2HZ	LYS	2	333	19.458	71.265	50.054	1.00	0.00
ATOM	736	3HZ	LYS	2	333	19.481	71.920	51.597	1.00	0.00
ATOM	737	N	PHE	2	334	17.750	69.248	44.552	1.00	0.00
ATOM	738	CA	PHE	2	334	17.900	67.995	43.812	1.00	0.00
ATOM	739	C	PHE	2	334	18.564	68.234	42.483	1.00	0.00
ATOM	740	O	PHE	2	334	18.353	69.292	41.866	1.00	0.00
ATOM	741	CB	PHE	2	334	16.535	67.332	43.611	1.00	0.00

ATOM	742	CG	PHE	2	334	16.312	66.216	44.607	1.00	0.00
ATOM	743	CD1	PHE	2	334	15.964	64.939	44.117	1.00	0.00
ATOM	744	CD2	PHE	2	334	16.437	66.452	45.995	1.00	0.00
ATOM	745	CE1	PHE	2	334	15.735	63.884	45.021	1.00	0.00
ATOM	746	CE2	PHE	2	334	16.210	65.399	46.902	1.00	0.00
ATOM	747	CZ	PHE	2	334	15.860	64.126	46.405	1.00	0.00
ATOM	748	H	PHE	2	334	16.899	69.767	44.511	1.00	0.00
ATOM	749	N	ALA	2	335	19.402	67.242	42.152	1.00	0.00
ATOM	750	CA	ALA	2	335	20.390	67.332	41.093	1.00	0.00
ATOM	751	C	ALA	2	335	21.011	65.997	40.738	1.00	0.00
ATOM	752	O	ALA	2	335	21.601	65.329	41.591	1.00	0.00
ATOM	753	CB	ALA	2	335	21.527	68.271	41.499	1.00	0.00
ATOM	754	H	ALA	2	335	19.355	66.401	42.678	1.00	0.00
ATOM	755	N	PHE	2	336	20.927	65.679	39.434	1.00	0.00
ATOM	756	CA	PHE	2	336	21.722	64.597	38.836	1.00	0.00
ATOM	757	C	PHE	2	336	23.025	65.064	38.209	1.00	0.00
ATOM	758	O	PHE	2	336	23.268	66.259	38.030	1.00	0.00
ATOM	759	CB	PHE	2	336	20.982	63.866	37.717	1.00	0.00
ATOM	760	CG	PHE	2	336	19.753	63.135	38.180	1.00	0.00
ATOM	761	CD1	PHE	2	336	19.877	61.800	38.617	1.00	0.00
ATOM	762	CD2	PHE	2	336	18.503	63.786	38.127	1.00	0.00
ATOM	763	CE1	PHE	2	336	18.718	61.086	38.966	1.00	0.00
ATOM	764	CE2	PHE	2	336	17.344	63.071	38.477	1.00	0.00
ATOM	765	CZ	PHE	2	336	17.464	61.723	38.871	1.00	0.00
ATOM	766	H	PHE	2	336	20.301	66.263	38.925	1.00	0.00
ATOM	767	N	LEU	2	337	23.842	64.040	37.890	1.00	0.00
ATOM	768	CA	LEU	2	337	25.119	64.104	37.169	1.00	0.00
ATOM	769	C	LEU	2	337	25.181	62.931	36.186	1.00	0.00
ATOM	770	O	LEU	2	337	25.301	61.768	36.555	1.00	0.00
ATOM	771	CB	LEU	2	337	26.312	63.953	38.128	1.00	0.00
ATOM	772	CG	LEU	2	337	26.806	65.117	39.004	1.00	0.00
ATOM	773	CD1	LEU	2	337	25.811	65.638	40.042	1.00	0.00
ATOM	774	CD2	LEU	2	337	28.105	64.714	39.704	1.00	0.00
ATOM	775	H	LEU	2	337	23.545	63.170	38.276	1.00	0.00
ATOM	776	N	LEU	2	338	25.027	63.224	34.899	1.00	0.00
ATOM	777	CA	LEU	2	338	25.401	62.152	33.963	1.00	0.00
ATOM	778	C	LEU	2	338	26.498	62.704	33.099	1.00	0.00
ATOM	779	O	LEU	2	338	26.552	63.923	32.925	1.00	0.00
ATOM	780	CB	LEU	2	338	24.239	61.707	33.070	1.00	0.00
ATOM	781	CG	LEU	2	338	23.366	60.571	33.615	1.00	0.00
ATOM	782	CD1	LEU	2	338	22.558	60.950	34.858	1.00	0.00
ATOM	783	CD2	LEU	2	338	22.472	59.996	32.516	1.00	0.00
ATOM	784	H	LEU	2	338	24.935	64.182	34.618	1.00	0.00
ATOM	785	N	GLU	2	339	27.366	61.830	32.569	1.00	0.00
ATOM	786	CA	GLU	2	339	28.278	62.294	31.518	1.00	0.00
ATOM	787	C	GLU	2	339	27.458	62.657	30.276	1.00	0.00
ATOM	788	O	GLU	2	339	26.311	62.219	30.166	1.00	0.00
ATOM	789	CB	GLU	2	339	29.402	61.258	31.257	1.00	0.00
ATOM	790	CG	GLU	2	339	30.178	60.783	32.513	1.00	0.00
ATOM	791	CD	GLU	2	339	31.545	60.163	32.185	1.00	0.00
ATOM	792	OE1	GLU	2	339	32.289	60.724	31.416	1.00	0.00
ATOM	793	OE2	GLU	2	339	31.930	59.125	32.701	1.00	0.00
ATOM	794	H	GLU	2	339	27.151	60.892	32.812	1.00	0.00
ATOM	795	N	SER	2	340	28.030	63.522	29.420	1.00	0.00
ATOM	796	CA	SER	2	340	27.339	63.926	28.189	1.00	0.00
ATOM	797	C	SER	2	340	25.852	64.282	28.219	1.00	0.00
ATOM	798	O	SER	2	340	25.486	65.455	28.329	1.00	0.00
ATOM	799	CB	SER	2	340	27.659	62.967	27.042	1.00	0.00
ATOM	800	OG	SER	2	340	28.962	63.233	26.501	1.00	0.00
ATOM	801	H	SER	2	340	29.007	63.684	29.505	1.00	0.00
ATOM	802	HG	SER	2	340	28.843	63.160	25.556	1.00	0.00
ATOM	803	N	THR	2	341	24.978	63.278	28.100	1.00	0.00

ATOM	804	CA	THR	2	341	23.580	63.565	27.771	1.00	0.00
ATOM	805	C	THR	2	341	22.650	64.065	28.864	1.00	0.00
ATOM	806	O	THR	2	341	21.419	64.079	28.756	1.00	0.00
ATOM	807	CB	THR	2	341	22.953	62.395	27.031	1.00	0.00
ATOM	808	OG1	THR	2	341	23.884	61.306	26.887	1.00	0.00
ATOM	809	CG2	THR	2	341	22.509	62.846	25.646	1.00	0.00
ATOM	810	H	THR	2	341	25.336	62.364	28.282	1.00	0.00
ATOM	811	HG1	THR	2	341	24.036	60.974	27.775	1.00	0.00
ATOM	812	N	MET	2	342	23.274	64.520	29.960	1.00	0.00
ATOM	813	CA	MET	2	342	22.406	65.251	30.875	1.00	0.00
ATOM	814	C	MET	2	342	21.980	66.642	30.420	1.00	0.00
ATOM	815	O	MET	2	342	21.124	67.284	31.026	1.00	0.00
ATOM	816	CB	MET	2	342	22.933	65.196	32.306	1.00	0.00
ATOM	817	CG	MET	2	342	21.811	64.790	33.265	1.00	0.00
ATOM	818	SD	MET	2	342	20.958	63.292	32.731	1.00	0.00
ATOM	819	CE	MET	2	342	19.742	63.174	34.055	1.00	0.00
ATOM	820	H	MET	2	342	24.261	64.430	30.080	1.00	0.00
ATOM	821	N	ASN	2	343	22.569	67.039	29.282	1.00	0.00
ATOM	822	CA	ASN	2	343	21.862	68.029	28.480	1.00	0.00
ATOM	823	C	ASN	2	343	20.884	67.327	27.541	1.00	0.00
ATOM	824	O	ASN	2	343	20.080	66.546	28.036	1.00	0.00
ATOM	825	CB	ASN	2	343	22.825	69.030	27.827	1.00	0.00
ATOM	826	CG	ASN	2	343	22.153	70.390	27.873	1.00	0.00
ATOM	827	OD1	ASN	2	343	21.564	70.775	28.884	1.00	0.00
ATOM	828	ND2	ASN	2	343	22.203	71.084	26.737	1.00	0.00
ATOM	829	H	ASN	2	343	23.290	66.490	28.864	1.00	0.00
ATOM	830	1HD2	ASN	2	343	21.683	71.942	26.664	1.00	0.00
ATOM	831	2HD2	ASN	2	343	22.700	70.797	25.919	1.00	0.00
ATOM	832	N	GLU	2	344	20.941	67.568	26.217	1.00	0.00
ATOM	833	CA	GLU	2	344	19.975	67.015	25.246	1.00	0.00
ATOM	834	C	GLU	2	344	19.042	65.847	25.587	1.00	0.00
ATOM	835	O	GLU	2	344	17.832	65.975	25.446	1.00	0.00
ATOM	836	CB	GLU	2	344	20.617	66.803	23.865	1.00	0.00
ATOM	837	CG	GLU	2	344	21.841	65.879	23.801	1.00	0.00
ATOM	838	CD	GLU	2	344	23.004	66.527	24.520	1.00	0.00
ATOM	839	OE1	GLU	2	344	23.478	67.545	24.056	1.00	0.00
ATOM	840	OE2	GLU	2	344	23.418	66.052	25.566	1.00	0.00
ATOM	841	H	GLU	2	344	21.628	68.212	25.889	1.00	0.00
ATOM	842	N	TYR	2	345	19.571	64.706	26.069	1.00	0.00
ATOM	843	CA	TYR	2	345	18.632	63.630	26.446	1.00	0.00
ATOM	844	C	TYR	2	345	17.593	64.068	27.467	1.00	0.00
ATOM	845	O	TYR	2	345	16.387	63.823	27.367	1.00	0.00
ATOM	846	CB	TYR	2	345	19.384	62.416	26.999	1.00	0.00
ATOM	847	CG	TYR	2	345	18.598	61.124	27.010	1.00	0.00
ATOM	848	CD1	TYR	2	345	18.522	60.362	25.827	1.00	0.00
ATOM	849	CD2	TYR	2	345	18.005	60.691	28.213	1.00	0.00
ATOM	850	CE1	TYR	2	345	17.880	59.113	25.858	1.00	0.00
ATOM	851	CE2	TYR	2	345	17.363	59.441	28.245	1.00	0.00
ATOM	852	CZ	TYR	2	345	17.321	58.661	27.070	1.00	0.00
ATOM	853	OH	TYR	2	345	16.707	57.420	27.102	1.00	0.00
ATOM	854	H	TYR	2	345	20.567	64.640	26.158	1.00	0.00
ATOM	855	HH	TYR	2	345	16.373	57.294	27.989	1.00	0.00
ATOM	856	N	ILE	2	346	18.121	64.744	28.490	1.00	0.00
ATOM	857	CA	ILE	2	346	17.211	65.223	29.511	1.00	0.00
ATOM	858	C	ILE	2	346	16.862	66.706	29.461	1.00	0.00
ATOM	859	O	ILE	2	346	15.992	67.162	30.192	1.00	0.00
ATOM	860	CB	ILE	2	346	17.673	64.734	30.894	1.00	0.00
ATOM	861	CG1	ILE	2	346	16.479	64.184	31.666	1.00	0.00
ATOM	862	CG2	ILE	2	346	18.400	65.815	31.705	1.00	0.00
ATOM	863	CD1	ILE	2	346	15.935	62.881	31.075	1.00	0.00
ATOM	864	H	ILE	2	346	19.079	65.030	28.433	1.00	0.00
ATOM	865	N	GLU	2	347	17.533	67.453	28.569	1.00	0.00

ATOM	866	CA	GLU	2	347	17.327	68.904	28.569	1.00	0.00
ATOM	867	C	GLU	2	347	15.880	69.283	28.342	1.00	0.00
ATOM	868	O	GLU	2	347	15.197	69.823	29.214	1.00	0.00
ATOM	869	CB	GLU	2	347	18.234	69.594	27.548	1.00	0.00
ATOM	870	CG	GLU	2	347	18.669	71.023	27.899	1.00	0.00
ATOM	871	CD	GLU	2	347	17.505	71.971	28.073	1.00	0.00
ATOM	872	OE1	GLU	2	347	17.453	72.655	29.092	1.00	0.00
ATOM	873	OE2	GLU	2	347	16.649	72.023	27.199	1.00	0.00
ATOM	874	H	GLU	2	347	18.200	67.041	27.947	1.00	0.00
ATOM	875	N	GLN	2	348	15.418	68.873	27.158	1.00	0.00
ATOM	876	CA	GLN	2	348	14.009	69.098	26.860	1.00	0.00
ATOM	877	C	GLN	2	348	13.065	68.164	27.610	1.00	0.00
ATOM	878	O	GLN	2	348	11.843	68.218	27.502	1.00	0.00
ATOM	879	CB	GLN	2	348	13.722	69.089	25.352	1.00	0.00
ATOM	880	CG	GLN	2	348	14.756	69.780	24.449	1.00	0.00
ATOM	881	CD	GLN	2	348	15.961	68.878	24.259	1.00	0.00
ATOM	882	OE1	GLN	2	348	15.855	67.653	24.171	1.00	0.00
ATOM	883	NE2	GLN	2	348	17.138	69.516	24.252	1.00	0.00
ATOM	884	H	GLN	2	348	16.055	68.388	26.562	1.00	0.00
ATOM	885	1HE2	GLN	2	348	18.030	69.059	24.214	1.00	0.00
ATOM	886	2HE2	GLN	2	348	17.173	70.516	24.306	1.00	0.00
ATOM	887	N	ARG	2	349	13.662	67.247	28.420	1.00	0.00
ATOM	888	CA	ARG	2	349	12.831	66.560	29.378	1.00	0.00
ATOM	889	C	ARG	2	349	12.741	67.247	30.742	1.00	0.00
ATOM	890	O	ARG	2	349	12.228	66.711	31.724	1.00	0.00
ATOM	891	CB	ARG	2	349	13.275	65.100	29.447	1.00	0.00
ATOM	892	CG	ARG	2	349	12.424	64.145	28.592	1.00	0.00
ATOM	893	CD	ARG	2	349	12.406	64.423	27.084	1.00	0.00
ATOM	894	NE	ARG	2	349	13.753	64.342	26.525	1.00	0.00
ATOM	895	CZ	ARG	2	349	14.129	65.091	25.463	1.00	0.00
ATOM	896	NH1	ARG	2	349	15.391	65.051	25.084	1.00	0.00
ATOM	897	NH2	ARG	2	349	13.271	65.872	24.813	1.00	0.00
ATOM	898	H	ARG	2	349	14.655	67.328	28.536	1.00	0.00
ATOM	899	HE	ARG	2	349	14.424	63.690	26.892	1.00	0.00
ATOM	900	1HH1	ARG	2	349	16.004	64.384	25.521	1.00	0.00
ATOM	901	2HH1	ARG	2	349	15.784	65.683	24.409	1.00	0.00
ATOM	902	1HH2	ARG	2	349	13.552	66.405	24.008	1.00	0.00
ATOM	903	2HH2	ARG	2	349	12.322	65.925	25.119	1.00	0.00
ATOM	904	N	LYS	2	350	13.188	68.512	30.699	1.00	0.00
ATOM	905	CA	LYS	2	350	12.946	69.560	31.694	1.00	0.00
ATOM	906	C	LYS	2	350	13.360	70.929	31.136	1.00	0.00
ATOM	907	O	LYS	2	350	14.234	71.590	31.693	1.00	0.00
ATOM	908	CB	LYS	2	350	13.715	69.239	32.997	1.00	0.00
ATOM	909	CG	LYS	2	350	15.182	68.796	32.818	1.00	0.00
ATOM	910	CD	LYS	2	350	16.245	69.824	33.229	1.00	0.00
ATOM	911	CE	LYS	2	350	17.263	70.169	32.131	1.00	0.00
ATOM	912	NZ	LYS	2	350	16.661	71.009	31.083	1.00	0.00
ATOM	913	H	LYS	2	350	13.742	68.777	29.912	1.00	0.00
ATOM	914	1HZ	LYS	2	350	17.343	71.465	30.438	1.00	0.00
ATOM	915	2HZ	LYS	2	350	16.027	70.467	30.473	1.00	0.00
ATOM	916	3HZ	LYS	2	350	16.076	71.758	31.504	1.00	0.00
ATOM	917	N	PRO	2	351	12.765	71.335	29.980	1.00	0.00
ATOM	918	CA	PRO	2	351	13.463	72.323	29.132	1.00	0.00
ATOM	919	C	PRO	2	351	13.709	73.643	29.835	1.00	0.00
ATOM	920	O	PRO	2	351	12.762	74.309	30.235	1.00	0.00
ATOM	921	CB	PRO	2	351	12.546	72.421	27.907	1.00	0.00
ATOM	922	CG	PRO	2	351	11.164	71.968	28.381	1.00	0.00
ATOM	923	CD	PRO	2	351	11.487	70.905	29.422	1.00	0.00
ATOM	924	N	CYS	2	352	15.010	73.934	30.032	1.00	0.00
ATOM	925	CA	CYS	2	352	15.599	74.983	30.886	1.00	0.00
ATOM	926	C	CYS	2	352	16.913	74.475	31.430	1.00	0.00
ATOM	927	O	CYS	2	352	16.948	73.438	32.106	1.00	0.00

ATOM	928	CB	CYS	2	352	14.744	75.453	32.082	1.00	0.00
ATOM	929	SG	CYS	2	352	14.221	74.137	33.230	1.00	0.00
ATOM	930	H	CYS	2	352	15.619	73.353	29.477	1.00	0.00
ATOM	931	N	ASP	2	353	17.949	75.224	31.058	1.00	0.00
ATOM	932	CA	ASP	2	353	19.333	74.834	31.282	1.00	0.00
ATOM	933	C	ASP	2	353	19.736	74.659	32.730	1.00	0.00
ATOM	934	O	ASP	2	353	19.058	75.057	33.684	1.00	0.00
ATOM	935	CB	ASP	2	353	20.292	75.778	30.537	1.00	0.00
ATOM	936	CG	ASP	2	353	20.220	77.195	31.080	1.00	0.00
ATOM	937	OD1	ASP	2	353	20.906	77.501	32.049	1.00	0.00
ATOM	938	OD2	ASP	2	353	19.480	78.003	30.534	1.00	0.00
ATOM	939	H	ASP	2	353	17.811	76.119	30.637	1.00	0.00
ATOM	940	N	THR	2	354	20.800	73.967	32.817	1.00	0.00
ATOM	941	CA	THR	2	354	21.189	73.282	34.069	1.00	0.00
ATOM	942	C	THR	2	354	22.645	72.859	34.236	1.00	0.00
ATOM	943	O	THR	2	354	23.006	71.851	34.855	1.00	0.00
ATOM	944	CB	THR	2	354	20.230	72.103	34.180	1.00	0.00
ATOM	945	OG1	THR	2	354	20.207	71.591	35.510	1.00	0.00
ATOM	946	CG2	THR	2	354	20.523	71.010	33.144	1.00	0.00
ATOM	947	H	THR	2	354	21.284	73.685	31.944	1.00	0.00
ATOM	948	HG1	THR	2	354	20.418	72.354	36.052	1.00	0.00
ATOM	949	N	MET	2	355	23.491	73.675	33.592	1.00	0.00
ATOM	950	CA	MET	2	355	24.881	73.303	33.819	1.00	0.00
ATOM	951	C	MET	2	355	25.407	74.086	34.998	1.00	0.00
ATOM	952	O	MET	2	355	24.958	75.204	35.264	1.00	0.00
ATOM	953	CB	MET	2	355	25.714	73.520	32.553	1.00	0.00
ATOM	954	CG	MET	2	355	26.975	72.651	32.519	1.00	0.00
ATOM	955	SD	MET	2	355	27.945	72.883	31.023	1.00	0.00
ATOM	956	CE	MET	2	355	29.154	71.577	31.307	1.00	0.00
ATOM	957	H	MET	2	355	23.207	74.584	33.288	1.00	0.00
ATOM	958	N	LYS	2	356	26.374	73.491	35.688	1.00	0.00
ATOM	959	CA	LYS	2	356	27.020	74.312	36.693	1.00	0.00
ATOM	960	C	LYS	2	356	28.517	74.153	36.649	1.00	0.00
ATOM	961	O	LYS	2	356	29.118	73.483	37.492	1.00	0.00
ATOM	962	CB	LYS	2	356	26.408	74.019	38.058	1.00	0.00
ATOM	963	CG	LYS	2	356	26.879	75.024	39.094	1.00	0.00
ATOM	964	CD	LYS	2	356	26.664	76.484	38.707	1.00	0.00
ATOM	965	CE	LYS	2	356	27.129	77.395	39.837	1.00	0.00
ATOM	966	NZ	LYS	2	356	26.237	77.232	40.980	1.00	0.00
ATOM	967	H	LYS	2	356	26.659	72.578	35.404	1.00	0.00
ATOM	968	1HZ	LYS	2	356	25.306	77.669	40.853	1.00	0.00
ATOM	969	2HZ	LYS	2	356	26.029	76.234	41.150	1.00	0.00
ATOM	970	3HZ	LYS	2	356	26.627	77.631	41.845	1.00	0.00
ATOM	971	N	VAL	2	357	29.079	74.753	35.579	1.00	0.00
ATOM	972	CA	VAL	2	357	30.483	74.591	35.174	1.00	0.00
ATOM	973	C	VAL	2	357	30.833	73.208	34.631	1.00	0.00
ATOM	974	O	VAL	2	357	31.347	73.049	33.521	1.00	0.00
ATOM	975	CB	VAL	2	357	31.465	75.058	36.271	1.00	0.00
ATOM	976	CG1	VAL	2	357	32.932	74.942	35.841	1.00	0.00
ATOM	977	CG2	VAL	2	357	31.139	76.489	36.712	1.00	0.00
ATOM	978	H	VAL	2	357	28.513	75.428	35.114	1.00	0.00
ATOM	979	N	GLY	2	358	30.501	72.187	35.435	1.00	0.00
ATOM	980	CA	GLY	2	358	30.882	70.821	35.090	1.00	0.00
ATOM	981	C	GLY	2	358	31.940	70.290	36.040	1.00	0.00
ATOM	982	O	GLY	2	358	32.103	70.804	37.150	1.00	0.00
ATOM	983	H	GLY	2	358	30.076	72.384	36.317	1.00	0.00
ATOM	984	N	GLY	2	359	32.632	69.250	35.523	1.00	0.00
ATOM	985	CA	GLY	2	359	33.779	68.606	36.170	1.00	0.00
ATOM	986	C	GLY	2	359	34.259	67.462	35.280	1.00	0.00
ATOM	987	O	GLY	2	359	33.790	67.312	34.152	1.00	0.00
ATOM	988	H	GLY	2	359	32.497	68.953	34.576	1.00	0.00
ATOM	989	N	ASN	2	360	35.186	66.635	35.793	1.00	0.00

ATOM	990	CA	ASN	2	360	35.576	65.428	35.043	1.00	0.00
ATOM	991	C	ASN	2	360	35.039	64.158	35.689	1.00	0.00
ATOM	992	O	ASN	2	360	34.506	64.230	36.810	1.00	0.00
ATOM	993	CB	ASN	2	360	37.103	65.347	34.859	1.00	0.00
ATOM	994	CG	ASN	2	360	37.802	64.889	36.131	1.00	0.00
ATOM	995	OD1	ASN	2	360	37.407	65.197	37.257	1.00	0.00
ATOM	996	ND2	ASN	2	360	38.859	64.105	35.925	1.00	0.00
ATOM	997	H	ASN	2	360	35.481	66.767	36.738	1.00	0.00
ATOM	998	1HD2	ASN	2	360	39.386	63.691	36.664	1.00	0.00
ATOM	999	2HD2	ASN	2	360	39.142	63.902	34.987	1.00	0.00
ATOM	1000	N	LEU	2	361	35.237	63.018	34.967	1.00	0.00
ATOM	1001	CA	LEU	2	361	34.876	61.684	35.470	1.00	0.00
ATOM	1002	C	LEU	2	361	35.619	60.507	34.808	1.00	0.00
ATOM	1003	O	LEU	2	361	36.085	60.551	33.667	1.00	0.00
ATOM	1004	CB	LEU	2	361	33.361	61.455	35.376	1.00	0.00
ATOM	1005	CG	LEU	2	361	32.781	60.670	36.558	1.00	0.00
ATOM	1006	CD1	LEU	2	361	32.729	61.510	37.835	1.00	0.00
ATOM	1007	CD2	LEU	2	361	31.426	60.047	36.231	1.00	0.00
ATOM	1008	H	LEU	2	361	35.529	63.093	34.018	1.00	0.00
ATOM	1009	N	ASP	2	362	35.672	59.417	35.601	1.00	0.00
ATOM	1010	CA	ASP	2	362	36.262	58.113	35.261	1.00	0.00
ATOM	1011	C	ASP	2	362	36.069	57.507	33.875	1.00	0.00
ATOM	1012	O	ASP	2	362	36.978	56.859	33.336	1.00	0.00
ATOM	1013	CB	ASP	2	362	35.891	57.076	36.345	1.00	0.00
ATOM	1014	CG	ASP	2	362	34.418	56.659	36.328	1.00	0.00
ATOM	1015	OD1	ASP	2	362	33.562	57.453	35.953	1.00	0.00
ATOM	1016	OD2	ASP	2	362	34.118	55.522	36.691	1.00	0.00
ATOM	1017	H	ASP	2	362	35.335	59.533	36.532	1.00	0.00
ATOM	1018	N	SER	2	363	34.856	57.716	33.320	1.00	0.00
ATOM	1019	CA	SER	2	363	34.778	57.097	32.003	1.00	0.00
ATOM	1020	C	SER	2	363	35.187	57.936	30.813	1.00	0.00
ATOM	1021	O	SER	2	363	36.340	57.849	30.390	1.00	0.00
ATOM	1022	CB	SER	2	363	33.498	56.273	31.794	1.00	0.00
ATOM	1023	OG	SER	2	363	33.321	55.404	32.927	1.00	0.00
ATOM	1024	H	SER	2	363	34.133	58.210	33.808	1.00	0.00
ATOM	1025	HG	SER	2	363	34.237	55.254	33.212	1.00	0.00
ATOM	1026	N	LYS	2	364	34.221	58.658	30.234	1.00	0.00
ATOM	1027	CA	LYS	2	364	34.404	58.693	28.792	1.00	0.00
ATOM	1028	C	LYS	2	364	35.164	59.874	28.230	1.00	0.00
ATOM	1029	O	LYS	2	364	34.775	61.043	28.377	1.00	0.00
ATOM	1030	CB	LYS	2	364	33.070	58.355	28.113	1.00	0.00
ATOM	1031	CG	LYS	2	364	31.900	59.315	28.330	1.00	0.00
ATOM	1032	CD	LYS	2	364	31.869	60.453	27.312	1.00	0.00
ATOM	1033	CE	LYS	2	364	31.363	61.747	27.933	1.00	0.00
ATOM	1034	NZ	LYS	2	364	32.281	62.149	28.999	1.00	0.00
ATOM	1035	H	LYS	2	364	33.369	58.912	30.688	1.00	0.00
ATOM	1036	1HZ	LYS	2	364	33.270	62.072	28.707	1.00	0.00
ATOM	1037	2HZ	LYS	2	364	32.091	63.124	29.268	1.00	0.00
ATOM	1038	3HZ	LYS	2	364	32.164	61.551	29.833	1.00	0.00
ATOM	1039	N	GLY	2	365	36.255	59.474	27.580	1.00	0.00
ATOM	1040	CA	GLY	2	365	37.192	60.395	26.954	1.00	0.00
ATOM	1041	C	GLY	2	365	38.170	59.630	26.080	1.00	0.00
ATOM	1042	O	GLY	2	365	38.644	60.086	25.038	1.00	0.00
ATOM	1043	H	GLY	2	365	36.349	58.486	27.486	1.00	0.00
ATOM	1044	N	TYR	2	366	38.468	58.411	26.552	1.00	0.00
ATOM	1045	CA	TYR	2	366	38.976	57.459	25.568	1.00	0.00
ATOM	1046	C	TYR	2	366	37.746	56.966	24.795	1.00	0.00
ATOM	1047	O	TYR	2	366	36.614	57.179	25.246	1.00	0.00
ATOM	1048	CB	TYR	2	366	39.816	56.369	26.273	1.00	0.00
ATOM	1049	CG	TYR	2	366	41.059	56.889	27.010	1.00	0.00
ATOM	1050	CD1	TYR	2	366	41.573	58.189	26.793	1.00	0.00
ATOM	1051	CD2	TYR	2	366	41.706	56.015	27.913	1.00	0.00

ATOM	1052	CE1	TYR	2	366	42.754	58.596	27.445	1.00	0.00
ATOM	1053	CE2	TYR	2	366	42.890	56.415	28.565	1.00	0.00
ATOM	1054	CZ	TYR	2	366	43.418	57.700	28.312	1.00	0.00
ATOM	1055	OH	TYR	2	366	44.608	58.103	28.907	1.00	0.00
ATOM	1056	H	TYR	2	366	38.101	58.130	27.436	1.00	0.00
ATOM	1057	HH	TYR	2	366	45.136	57.300	29.048	1.00	0.00
ATOM	1058	N	GLY	2	367	37.953	56.420	23.601	1.00	0.00
ATOM	1059	CA	GLY	2	367	36.799	56.335	22.699	1.00	0.00
ATOM	1060	C	GLY	2	367	36.986	55.338	21.585	1.00	0.00
ATOM	1061	O	GLY	2	367	36.066	54.684	21.071	1.00	0.00
ATOM	1062	H	GLY	2	367	38.871	56.134	23.345	1.00	0.00
ATOM	1063	N	VAL	2	368	38.276	55.233	21.223	1.00	0.00
ATOM	1064	CA	VAL	2	368	38.628	53.981	20.573	1.00	0.00
ATOM	1065	C	VAL	2	368	39.403	53.086	21.533	1.00	0.00
ATOM	1066	O	VAL	2	368	40.067	53.580	22.453	1.00	0.00
ATOM	1067	CB	VAL	2	368	39.370	54.252	19.257	1.00	0.00
ATOM	1068	CG1	VAL	2	368	39.422	53.013	18.359	1.00	0.00
ATOM	1069	CG2	VAL	2	368	38.720	55.418	18.506	1.00	0.00
ATOM	1070	H	VAL	2	368	38.954	55.879	21.570	1.00	0.00
ATOM	1071	N	ALA	2	369	38.292	51.757	21.301	1.00	0.00
ATOM	1072	CA	ALA	2	369	40.103	50.755	21.991	1.00	0.00
ATOM	1073	C	ALA	2	369	40.986	50.017	21.008	1.00	0.00
ATOM	1074	O	ALA	2	369	40.746	50.087	19.796	1.00	0.00
ATOM	1075	CB	ALA	2	369	39.210	49.721	22.673	1.00	0.00
ATOM	1076	H	ALA	2	369	38.622	51.435	20.636	1.00	0.00
ATOM	1077	N	THR	2	370	41.995	49.356	21.580	1.00	0.00
ATOM	1078	CA	THR	2	370	42.946	48.522	20.851	1.00	0.00
ATOM	1079	C	THR	2	370	43.819	47.618	21.751	1.00	0.00
ATOM	1080	O	THR	2	370	45.033	47.567	21.570	1.00	0.00
ATOM	1081	CB	THR	2	370	43.793	49.468	19.964	1.00	0.00
ATOM	1082	OG1	THR	2	370	44.807	48.770	19.218	1.00	0.00
ATOM	1083	CG2	THR	2	370	44.407	50.614	20.777	1.00	0.00
ATOM	1084	H	THR	2	370	42.019	49.382	22.576	1.00	0.00
ATOM	1085	HG1	THR	2	370	45.365	48.3461	19.944	1.00	0.00
ATOM	1086	N	PRO	2	371	43.216	46.903	22.745	1.00	0.00
ATOM	1087	CA	PRO	2	371	44.010	46.190	23.735	1.00	0.00
ATOM	1088	C	PRO	2	371	45.129	45.274	23.215	1.00	0.00
ATOM	1089	O	PRO	2	371	44.890	44.314	22.467	1.00	0.00
ATOM	1090	CB	PRO	2	371	43.024	45.448	24.597	1.00	0.00
ATOM	1091	CG	PRO	2	371	41.759	46.283	24.474	1.00	0.00
ATOM	1092	CD	PRO	2	371	41.796	46.769	23.048	1.00	0.00
ATOM	1093	N	LYS	2	372	46.346	45.646	23.662	1.00	0.00
ATOM	1094	CA	LYS	2	372	47.537	44.799	23.677	1.00	0.00
ATOM	1095	C	LYS	2	372	47.823	44.047	22.394	1.00	0.00
ATOM	1096	O	LYS	2	372	48.641	44.435	21.560	1.00	0.00
ATOM	1097	CB	LYS	2	372	47.491	43.853	24.891	1.00	0.00
ATOM	1098	CG	LYS	2	372	48.353	44.204	26.117	1.00	0.00
ATOM	1099	CD	LYS	2	372	48.053	45.548	26.786	1.00	0.00
ATOM	1100	CE	LYS	2	372	49.931	46.685	26.260	1.00	0.00
ATOM	1101	NZ	LYS	2	372	48.513	47.943	26.871	1.00	0.00
ATOM	1102	H	LYS	2	372	46.404	46.554	24.085	1.00	0.00
ATOM	1103	1HZ	LYS	2	372	48.205	47.775	27.841	1.00	0.00
ATOM	1104	2HZ	LYS	2	372	49.328	48.571	26.986	1.00	0.00
ATOM	1105	3HZ	LYS	2	372	47.743	48.402	26.341	1.00	0.00
ATOM	1106	N	GLY	2	373	47.090	42.934	22.246	1.00	0.00
ATOM	1107	CA	GLY	2	373	47.313	42.011	21.135	1.00	0.00
ATOM	1108	C	GLY	2	373	47.226	42.547	19.706	1.00	0.00
ATOM	1109	O	GLY	2	373	47.436	41.796	18.753	1.00	0.00
ATOM	1110	H	GLY	2	373	46.367	42.795	22.924	1.00	0.00
ATOM	1111	N	SER	2	374	46.926	43.846	19.545	1.00	0.00
ATOM	1112	CA	SER	2	374	47.157	44.442	18.232	1.00	0.00
ATOM	1113	C	SER	2	374	47.540	45.903	18.279	1.00	0.00

ATOM	1114	O	SER	2	374	47.007	46.713	19.033	1.00	0.00
ATOM	1115	CB	SER	2	374	45.944	44.288	17.329	1.00	0.00
ATOM	1116	OG	SER	2	374	45.792	42.917	16.941	1.00	0.00
ATOM	1117	H	SER	2	374	46.725	44.454	20.316	1.00	0.00
ATOM	1118	HG	SER	2	374	45.932	42.385	17.724	1.00	0.00
ATOM	1119	N	ALA	2	375	48.486	46.238	17.388	1.00	0.00
ATOM	1120	CA	ALA	2	375	48.902	47.636	17.257	1.00	0.00
ATOM	1121	C	ALA	2	375	47.990	48.502	16.389	1.00	0.00
ATOM	1122	O	ALA	2	375	48.424	49.315	15.570	1.00	0.00
ATOM	1123	CB	ALA	2	375	50.332	47.689	16.715	1.00	0.00
ATOM	1124	H	ALA	2	375	48.890	45.518	16.830	1.00	0.00
ATOM	1125	N	LEU	2	376	46.673	48.276	16.592	1.00	0.00
ATOM	1126	CA	LEU	2	376	45.682	49.143	15.954	1.00	0.00
ATOM	1127	C	LEU	2	376	45.771	50.567	16.469	1.00	0.00
ATOM	1128	O	LEU	2	376	45.368	51.515	15.805	1.00	0.00
ATOM	1129	CB	LEU	2	376	44.249	48.658	16.193	1.00	0.00
ATOM	1130	CG	LEU	2	376	44.024	47.148	16.150	1.00	0.00
ATOM	1131	CD1	LEU	2	376	42.767	46.753	16.923	1.00	0.00
ATOM	1132	CD2	LEU	2	376	44.030	46.595	14.728	1.00	0.00
ATOM	1133	H	LEU	2	376	46.456	47.762	17.420	1.00	0.00
ATOM	1134	N	GLY	2	377	46.336	50.662	17.682	1.00	0.00
ATOM	1135	CA	GLY	2	377	46.646	51.939	18.325	1.00	0.00
ATOM	1136	C	GLY	2	377	47.290	52.942	17.401	1.00	0.00
ATOM	1137	O	GLY	2	377	46.819	54.061	17.224	1.00	0.00
ATOM	1138	H	GLY	2	377	46.515	49.796	18.148	1.00	0.00
ATOM	1139	N	ASN	2	378	48.350	52.466	16.726	1.00	0.00
ATOM	1140	CA	ASN	2	378	49.029	53.310	15.727	1.00	0.00
ATOM	1141	C	ASN	2	378	48.098	53.943	14.694	1.00	0.00
ATOM	1142	O	ASN	2	378	48.196	55.125	14.343	1.00	0.00
ATOM	1143	CB	ASN	2	378	50.136	52.546	14.979	1.00	0.00
ATOM	1144	CG	ASN	2	378	51.052	51.799	15.931	1.00	0.00
ATOM	1145	OD1	ASN	2	378	50.643	50.880	16.626	1.00	0.00
ATOM	1146	ND2	ASN	2	378	52.321	52.210	15.947	1.00	0.00
ATOM	1147	H	ASN	2	378	48.712	51.579	17.033	1.00	0.00
ATOM	1148	1HD2	ASN	2	378	52.968	51.789	16.588	1.00	0.00
ATOM	1149	2HD2	ASN	2	378	52.683	52.906	15.325	1.00	0.00
ATOM	1150	N	ALA	2	379	47.174	53.076	14.232	1.00	0.00
ATOM	1151	CA	ALA	2	379	46.218	53.594	13.261	1.00	0.00
ATOM	1152	C	ALA	2	379	45.327	54.674	13.840	1.00	0.00
ATOM	1153	O	ALA	2	379	45.123	55.734	13.249	1.00	0.00
ATOM	1154	CB	ALA	2	379	45.350	52.470	12.687	1.00	0.00
ATOM	1155	H	ALA	2	379	46.992	52.239	14.750	1.00	0.00
ATOM	1156	N	VAL	2	380	44.814	54.409	15.053	1.00	0.00
ATOM	1157	CA	VAL	2	380	43.858	55.372	15.617	1.00	0.00
ATOM	1158	C	VAL	2	380	44.423	56.777	15.821	1.00	0.00
ATOM	1159	O	VAL	2	380	43.834	57.806	15.484	1.00	0.00
ATOM	1160	CB	VAL	2	380	43.245	54.945	16.914	1.00	0.00
ATOM	1161	CG1	VAL	2	380	42.087	55.751	17.322	1.00	0.00
ATOM	1162	CG2	VAL	2	380	42.796	53.387	16.792	1.00	0.00
ATOM	1163	H	VAL	2	380	45.044	53.551	15.513	1.00	0.00
ATOM	1164	N	ASN	2	381	45.676	56.765	16.316	1.00	0.00
ATOM	1165	CA	ASN	2	381	46.383	58.044	16.391	1.00	0.00
ATOM	1166	C	ASN	2	381	46.407	58.796	15.071	1.00	0.00
ATOM	1167	O	ASN	2	381	45.797	59.847	14.955	1.00	0.00
ATOM	1168	CB	ASN	2	381	47.794	57.895	16.968	1.00	0.00
ATOM	1169	CG	ASN	2	381	48.367	59.281	17.221	1.00	0.00
ATOM	1170	OD1	ASN	2	381	49.196	59.799	16.483	1.00	0.00
ATOM	1171	ND2	ASN	2	381	47.867	59.879	18.308	1.00	0.00
ATOM	1172	H	ASN	2	381	46.070	55.952	16.751	1.00	0.00
ATOM	1173	1HD2	ASN	2	381	48.250	60.754	18.599	1.00	0.00
ATOM	1174	2HD2	ASN	2	381	47.118	59.465	18.834	1.00	0.00
ATOM	1175	N	LEU	2	382	47.065	58.185	14.069	1.00	0.00

ATOM	1176	CA	LEU	2	382	47.081	58.801	12.735	1.00	0.00
ATOM	1177	C	LEU	2	382	45.740	59.364	12.260	1.00	0.00
ATOM	1178	O	LEU	2	382	45.618	60.470	11.750	1.00	0.00
ATOM	1179	CB	LEU	2	382	47.643	57.799	11.721	1.00	0.00
ATOM	1180	CG	LEU	2	382	47.891	58.375	10.322	1.00	0.00
ATOM	1181	CD1	LEU	2	382	48.913	59.515	10.335	1.00	0.00
ATOM	1182	CD2	LEU	2	382	48.263	57.280	9.322	1.00	0.00
ATOM	1183	H	LEU	2	382	47.617	57.375	14.265	1.00	0.00
ATOM	1184	N	ALA	2	383	44.710	58.539	12.502	1.00	0.00
ATOM	1185	CA	ALA	2	383	43.355	58.962	12.152	1.00	0.00
ATOM	1186	C	ALA	2	383	42.842	60.215	12.849	1.00	0.00
ATOM	1187	O	ALA	2	383	42.851	61.300	12.276	1.00	0.00
ATOM	1188	CB	ALA	2	383	42.367	57.806	12.338	1.00	0.00
ATOM	1189	H	ALA	2	383	44.899	57.714	13.034	1.00	0.00
ATOM	1190	N	VAL	2	384	42.360	60.058	14.093	1.00	0.00
ATOM	1191	CA	VAL	2	384	41.676	61.197	14.723	1.00	0.00
ATOM	1192	C	VAL	2	384	43.608	62.303	15.228	1.00	0.00
ATOM	1193	O	VAL	2	384	42.231	63.359	15.729	1.00	0.00
ATOM	1194	CB	VAL	2	384	40.708	60.719	15.821	1.00	0.00
ATOM	1195	CG1	VAL	2	384	39.622	61.762	16.105	1.00	0.00
ATOM	1196	CG2	VAL	2	384	40.064	59.374	15.475	1.00	0.00
ATOM	1197	H	VAL	2	384	42.584	59.215	14.579	1.00	0.00
ATOM	1198	N	LEU	2	385	43.907	62.030	15.064	1.00	0.00
ATOM	1199	CA	LEU	2	385	44.806	63.172	14.999	1.00	0.00
ATOM	1200	C	LEU	2	385	44.788	63.857	13.642	1.00	0.00
ATOM	1201	O	LEU	2	385	44.546	65.051	13.561	1.00	0.00
ATOM	1202	CB	LEU	2	385	46.223	62.814	15.452	1.00	0.00
ATOM	1203	CG	LEU	2	385	47.048	64.019	15.911	1.00	0.00
ATOM	1204	CD1	LEU	2	385	46.386	54.758	17.079	1.00	0.00
ATOM	1205	CD2	LEU	2	385	48.485	63.614	16.238	1.00	0.00
ATOM	1206	H	LEU	2	385	44.195	61.124	14.760	1.00	0.00
ATOM	1207	N	LYS	2	386	45.012	63.106	12.553	1.00	0.00
ATOM	1208	CA	LYS	2	386	44.980	63.837	11.281	1.00	0.00
ATOM	1209	C	LYS	2	386	43.587	64.054	10.677	1.00	0.00
ATOM	1210	O	LYS	2	386	43.404	64.438	9.518	1.00	0.00
ATOM	1211	CB	LYS	2	386	46.001	63.255	10.292	1.00	0.00
ATOM	1212	CG	LYS	2	386	46.597	64.307	9.347	1.00	0.00
ATOM	1213	CD	LYS	2	386	46.042	64.252	7.920	1.00	0.00
ATOM	1214	CE	LYS	2	386	45.833	65.645	7.319	1.00	0.00
ATOM	1215	NZ	LYS	2	386	44.704	66.302	7.985	1.00	0.00
ATOM	1216	H	LYS	2	386	44.969	62.109	12.598	1.00	0.00
ATOM	1217	1HZ	LYS	2	386	44.941	67.275	8.254	1.00	0.00
ATOM	1218	2HZ	LYS	2	386	43.823	66.318	7.445	1.00	0.00
ATOM	1219	3HZ	LYS	2	386	44.435	65.865	8.903	1.00	0.00
ATOM	1220	N	LEU	2	387	42.589	63.798	11.533	1.00	0.00
ATOM	1221	CA	LEU	2	387	41.236	64.308	11.306	1.00	0.00
ATOM	1222	C	LEU	2	387	40.900	65.419	12.295	1.00	0.00
ATOM	1223	O	LEU	2	387	39.761	65.862	12.468	1.00	0.00
ATOM	1224	CB	LEU	2	387	40.196	63.187	11.420	1.00	0.00
ATOM	1225	CG	LEU	2	387	40.418	61.981	10.497	1.00	0.00
ATOM	1226	CD1	LEU	2	387	39.437	60.850	10.811	1.00	0.00
ATOM	1227	CD2	LEU	2	387	40.419	62.349	9.013	1.00	0.00
ATOM	1228	H	LEU	2	387	42.815	63.323	12.383	1.00	0.00
ATOM	1229	N	ASN	2	388	41.959	65.831	13.005	1.00	0.00
ATOM	1230	CA	ASN	2	388	41.752	66.780	14.087	1.00	0.00
ATOM	1231	C	ASN	2	388	42.241	68.159	13.771	1.00	0.00
ATOM	1232	O	ASN	2	388	41.510	69.116	14.001	1.00	0.00
ATOM	1233	CB	ASN	2	388	42.358	66.337	15.415	1.00	0.00
ATOM	1234	CG	ASN	2	388	41.231	66.181	16.407	1.00	0.00
ATOM	1235	OD1	ASN	2	388	40.123	65.775	16.055	1.00	0.00
ATOM	1236	ND2	ASN	2	388	41.525	66.605	17.638	1.00	0.00
ATOM	1237	H	ASN	2	388	42.894	65.593	12.742	1.00	0.00

ATOM	1238	1HD2	ASN	2	388	40.777	66.689	18.300	1.00	0.00
ATOM	1239	2HD2	ASN	2	388	42.475	66.811	17.886	1.00	0.00
ATOM	1240	N	GLU	2	389	43.458	68.208	13.225	1.00	0.00
ATOM	1241	CA	GLU	2	389	43.967	69.493	12.734	1.00	0.00
ATOM	1242	C	GLU	2	389	43.166	70.080	11.580	1.00	0.00
ATOM	1243	O	GLU	2	389	43.157	71.273	11.305	1.00	0.00
ATOM	1244	CB	GLU	2	389	45.459	69.405	12.368	1.00	0.00
ATOM	1245	CG	GLU	2	389	45.935	68.154	11.607	1.00	0.00
ATOM	1246	CD	GLU	2	389	45.076	67.881	10.387	1.00	0.00
ATOM	1247	OE1	GLU	2	389	44.279	66.959	10.414	1.00	0.00
ATOM	1248	OE2	GLU	2	389	45.165	68.579	9.389	1.00	0.00
ATOM	1249	H	GLU	2	389	43.945	67.352	13.033	1.00	0.00
ATOM	1250	N	GLN	2	390	42.447	69.183	10.886	1.00	0.00
ATOM	1251	CA	GLN	2	390	41.512	69.667	9.866	1.00	0.00
ATOM	1252	C	GLN	2	390	40.128	70.010	10.406	1.00	0.00
ATOM	1253	O	GLN	2	390	39.182	70.368	9.701	1.00	0.00
ATOM	1254	CB	GLN	2	390	41.440	68.655	8.722	1.00	0.00
ATOM	1255	CG	GLN	2	390	41.015	67.260	9.182	1.00	0.00
ATOM	1256	CD	GLN	2	390	41.130	66.296	8.026	1.00	0.00
ATOM	1257	OE1	GLN	2	390	42.123	66.225	7.308	1.00	0.00
ATOM	1258	NE2	GLN	2	390	40.034	65.569	7.804	1.00	0.00
ATOM	1259	H	GLN	2	390	42.650	68.217	11.056	1.00	0.00
ATOM	1260	1HE2	GLN	2	390	39.946	65.009	6.985	1.00	0.00
ATOM	1261	2HE2	GLN	2	390	39.304	65.608	8.485	1.00	0.00
ATOM	1262	N	GLY	2	391	40.030	69.839	11.740	1.00	0.00
ATOM	1263	CA	GLY	2	391	38.755	70.051	12.418	1.00	0.00
ATOM	1264	C	GLY	2	391	37.623	69.133	11.997	1.00	0.00
ATOM	1265	O	GLY	2	391	36.449	69.488	12.157	1.00	0.00
ATOM	1266	H	GLY	2	391	40.074	69.699	12.260	1.00	0.00
ATOM	1267	N	LEU	2	392	38.006	67.950	11.479	1.00	0.00
ATOM	1268	CA	LEU	2	392	36.907	67.054	11.140	1.00	0.00
ATOM	1269	C	LEU	2	392	36.081	66.698	12.359	1.00	0.00
ATOM	1270	O	LEU	2	392	34.859	66.699	12.314	1.00	0.00
ATOM	1271	CB	LEU	2	392	37.392	65.801	10.407	1.00	0.00
ATOM	1272	CG	LEU	2	392	36.268	65.013	9.728	1.00	0.00
ATOM	1273	CD1	LEU	2	392	35.659	65.789	8.559	1.00	0.00
ATOM	1274	CD2	LEU	2	392	36.715	63.614	9.305	1.00	0.00
ATOM	1275	H	LEU	2	392	38.952	67.656	11.581	1.00	0.00
ATOM	1276	N	LEU	2	393	36.805	66.473	13.474	1.00	0.00
ATOM	1277	CA	LEU	2	393	36.123	66.183	14.742	1.00	0.00
ATOM	1278	C	LEU	2	393	35.016	67.149	15.135	1.00	0.00
ATOM	1279	O	LEU	2	393	33.870	66.755	15.288	1.00	0.00
ATOM	1280	CB	LEU	2	393	37.126	66.041	15.881	1.00	0.00
ATOM	1281	CG	LEU	2	393	36.631	65.166	17.034	1.00	0.00
ATOM	1282	CD1	LEU	2	393	36.308	63.750	16.559	1.00	0.00
ATOM	1283	CD2	LEU	2	393	37.619	65.150	18.200	1.00	0.00
ATOM	1284	H	LEU	2	393	37.801	66.445	13.352	1.00	0.00
ATOM	1285	N	ASP	2	394	35.362	68.460	15.207	1.00	0.00
ATOM	1286	CA	ASP	2	394	34.270	69.421	15.492	1.00	0.00
ATOM	1287	C	ASP	2	394	33.103	69.311	14.518	1.00	0.00
ATOM	1288	O	ASP	2	394	31.941	69.076	14.853	1.00	0.00
ATOM	1289	CB	ASP	2	394	34.747	70.886	15.613	1.00	0.00
ATOM	1290	CG	ASP	2	394	33.606	71.825	16.035	1.00	0.00
ATOM	1291	OD1	ASP	2	394	33.183	72.653	15.232	1.00	0.00
ATOM	1292	OD2	ASP	2	394	33.122	71.733	17.163	1.00	0.00
ATOM	1293	H	ASP	2	394	36.319	68.744	15.153	1.00	0.00
ATOM	1294	N	LYS	2	395	33.485	69.360	13.242	1.00	0.00
ATOM	1295	CA	LYS	2	395	32.507	69.101	12.184	1.00	0.00
ATOM	1296	C	LYS	2	395	31.657	67.837	12.377	1.00	0.00
ATOM	1297	O	LYS	2	395	30.491	67.728	12.008	1.00	0.00
ATOM	1298	CB	LYS	2	395	33.292	69.073	10.889	1.00	0.00
ATOM	1299	CG	LYS	2	395	32.504	69.158	9.598	1.00	0.00

ATOM	1300	CD	LYS	2	395	33.543	69.028	8.502	1.00	0.00
ATOM	1301	CE	LYS	2	395	32.998	69.174	7.097	1.00	0.00
ATOM	1302	NZ	LYS	2	395	34.120	68.873	6.205	1.00	0.00
ATOM	1303	H	LYS	2	395	34.432	69.624	13.072	1.00	0.00
ATOM	1304	1HZ	LYS	2	395	34.357	67.864	6.266	1.00	0.00
ATOM	1305	2HZ	LYS	2	395	33.856	69.126	5.236	1.00	0.00
ATOM	1306	3HZ	LYS	2	395	34.948	69.427	6.503	1.00	0.00
ATOM	1307	N	LEU	2	396	32.272	66.867	13.052	1.00	0.00
ATOM	1308	CA	LEU	2	396	31.581	65.615	13.333	1.00	0.00
ATOM	1309	C	LEU	2	396	30.696	65.582	14.573	1.00	0.00
ATOM	1310	O	LEU	2	396	29.575	65.093	14.489	1.00	0.00
ATOM	1311	CB	LEU	2	396	32.567	64.444	13.294	1.00	0.00
ATOM	1312	CG	LEU	2	396	32.429	63.574	12.039	1.00	0.00
ATOM	1313	CD1	LEU	2	396	32.507	64.374	10.737	1.00	0.00
ATOM	1314	CD2	LEU	2	396	33.425	62.417	12.048	1.00	0.00
ATOM	1315	H	LEU	2	396	33.219	66.979	13.353	1.00	0.00
ATOM	1316	N	LYS	2	397	31.202	66.115	15.705	1.00	0.00
ATOM	1317	CA	LYS	2	397	30.365	66.234	16.914	1.00	0.00
ATOM	1318	C	LYS	2	397	29.303	67.315	16.888	1.00	0.00
ATOM	1319	O	LYS	2	397	28.351	67.326	17.675	1.00	0.00
ATOM	1320	CB	LYS	2	397	31.180	66.356	18.219	1.00	0.00
ATOM	1321	CG	LYS	2	397	32.331	67.372	18.328	1.00	0.00
ATOM	1322	CD	LYS	2	397	32.004	68.849	18.073	1.00	0.00
ATOM	1323	CE	LYS	2	397	31.159	69.624	19.086	1.00	0.00
ATOM	1324	NZ	LYS	2	397	30.794	70.914	18.489	1.00	0.00
ATOM	1325	H	LYS	2	397	32.116	66.523	15.710	1.00	0.00
ATOM	1326	1HZ	LYS	2	397	30.704	71.662	19.201	1.00	0.00
ATOM	1327	2HZ	LYS	2	397	31.516	71.194	17.795	1.00	0.00
ATOM	1328	3HZ	LYS	2	397	29.865	70.849	18.027	1.00	0.00
ATOM	1329	N	ASN	2	398	29.498	68.230	15.929	1.00	0.00
ATOM	1330	CA	ASN	2	398	28.538	69.323	15.743	1.00	0.00
ATOM	1331	C	ASN	2	398	27.245	68.913	15.068	1.00	0.00
ATOM	1332	O	ASN	2	398	26.587	69.677	14.373	1.00	0.00
ATOM	1333	CB	ASN	2	398	29.153	70.485	14.962	1.00	0.00
ATOM	1334	CG	ASN	2	398	29.129	71.747	15.798	1.00	0.00
ATOM	1335	OD1	ASN	2	398	28.125	72.177	16.357	1.00	0.00
ATOM	1336	ND2	ASN	2	398	30.328	72.327	15.899	1.00	0.00
ATOM	1337	H	ASN	2	398	30.328	68.159	15.378	1.00	0.00
ATOM	1338	1HD2	ASN	2	398	30.447	73.128	16.481	1.00	0.00
ATOM	1339	2HD2	ASN	2	398	31.153	72.060	15.393	1.00	0.00
ATOM	1340	N	LYS	2	399	26.880	67.633	15.271	1.00	0.00
ATOM	1341	CA	LYS	2	399	25.511	67.187	15.009	1.00	0.00
ATOM	1342	C	LYS	2	399	24.765	66.868	16.314	1.00	0.00
ATOM	1343	O	LYS	2	399	23.687	66.280	16.346	1.00	0.00
ATOM	1344	CB	LYS	2	399	25.507	65.964	14.071	1.00	0.00
ATOM	1345	CG	LYS	2	399	26.746	65.778	13.173	1.00	0.00
ATOM	1346	CD	LYS	2	399	26.716	64.474	12.357	1.00	0.00
ATOM	1347	CE	LYS	2	399	28.006	64.151	11.581	1.00	0.00
ATOM	1348	NZ	LYS	2	399	29.028	63.512	12.413	1.00	0.00
ATOM	1349	H	LYS	2	399	27.521	67.007	15.710	1.00	0.00
ATOM	1350	1HZ	LYS	2	399	28.967	63.773	13.417	1.00	0.00
ATOM	1351	2HZ	LYS	2	399	29.021	62.476	12.283	1.00	0.00
ATOM	1352	3HZ	LYS	2	399	29.939	63.838	12.060	1.00	0.00
ATOM	1353	N	TRP	2	400	25.438	67.233	17.425	1.00	0.00
ATOM	1354	CA	TRP	2	400	24.909	67.004	18.770	1.00	0.00
ATOM	1355	C	TRP	2	400	25.209	68.198	19.656	1.00	0.00
ATOM	1356	O	TRP	2	400	24.317	68.862	20.185	1.00	0.00
ATOM	1357	CB	TRP	2	400	25.486	65.728	19.410	1.00	0.00
ATOM	1358	CG	TRP	2	400	24.968	64.487	18.718	1.00	0.00
ATOM	1359	CD1	TRP	2	400	23.811	63.760	19.044	1.00	0.00
ATOM	1360	CD2	TRP	2	400	25.529	63.812	17.573	1.00	0.00
ATOM	1361	NE1	TRP	2	400	23.627	62.711	18.194	1.00	0.00

ATOM	1362	CE2	TRP	2	400	24.663	62.708	17.265	1.00	0.00
ATOM	1363	CE3	TRP	2	400	26.678	64.047	16.789	1.00	0.00
ATOM	1364	CZ2	TRP	2	400	24.959	61.873	16.166	1.00	0.00
ATOM	1365	CZ3	TRP	2	400	26.959	63.200	15.697	1.00	0.00
ATOM	1366	CH2	TRP	2	400	26.104	62.123	15.382	1.00	0.00
ATOM	1367	H	TRP	2	400	26.268	67.784	17.338	1.00	0.00
ATOM	1368	HE1	TRP	2	400	22.898	62.049	18.223	1.00	0.00
ATOM	1369	N	TRP	2	401	26.522	68.460	19.766	1.00	0.00
ATOM	1370	CA	TRP	2	401	26.954	69.487	20.704	1.00	0.00
ATOM	1371	C	TRP	2	401	27.384	70.024	20.024	1.00	0.00
ATOM	1372	O	TRP	2	401	28.144	70.757	19.054	1.00	0.00
ATOM	1373	CB	TRP	2	401	28.112	68.970	21.570	1.00	0.00
ATOM	1374	CG	TRP	2	401	27.769	67.657	22.239	1.00	0.00
ATOM	1375	CD1	TRP	2	401	26.668	67.394	23.067	1.00	0.00
ATOM	1376	CD2	TRP	2	401	28.500	66.412	22.180	1.00	0.00
ATOM	1377	NE1	TRP	2	401	26.673	66.109	23.508	1.00	0.00
ATOM	1378	CE2	TRP	2	401	27.788	65.460	22.987	1.00	0.00
ATOM	1379	CE3	TRP	2	401	29.688	66.026	21.524	1.00	0.00
ATOM	1380	CZ2	TRP	2	401	28.281	64.145	23.120	1.00	0.00
ATOM	1381	CZ3	TRP	2	401	30.170	64.707	21.665	1.00	0.00
ATOM	1382	CH2	TRP	2	401	29.471	63.771	22.459	1.00	0.00
ATOM	1383	H	TRP	2	401	27.185	68.007	19.175	1.00	0.00
ATOM	1384	HE1	TRP	2	401	25.987	65.758	24.126	1.00	0.00
ATOM	1385	N	TYR	2	402	26.915	71.879	20.627	1.00	0.00
ATOM	1386	CA	TYR	2	402	27.400	73.191	20.209	1.00	0.00
ATOM	1387	C	TYR	2	402	28.878	73.399	20.581	1.00	0.00
ATOM	1388	O	TYR	2	402	29.753	72.935	19.847	1.00	0.00
ATOM	1389	CB	TYR	2	402	26.475	74.310	20.746	1.00	0.00
ATOM	1390	CG	TYR	2	402	25.011	74.189	20.336	1.00	0.00
ATOM	1391	CD1	TYR	2	402	24.638	74.314	18.980	1.00	0.00
ATOM	1392	CD2	TYR	2	402	24.036	74.000	21.341	1.00	0.00
ATOM	1393	CE1	TYR	2	402	23.272	74.287	18.632	1.00	0.00
ATOM	1394	CE2	TYR	2	402	22.669	73.976	20.993	1.00	0.00
ATOM	1395	CZ	TYR	2	402	22.294	74.128	19.641	1.00	0.00
ATOM	1396	OH	TYR	2	402	20.943	74.106	19.288	1.00	0.00
ATOM	1397	H	TYR	2	402	26.344	71.829	21.447	1.00	0.00
ATOM	1398	HH	TYR	2	402	20.974	74.065	18.336	1.00	0.00
ATOM	1399	N	ASP	2	403	29.106	74.092	21.719	1.00	0.00
ATOM	1400	CA	ASP	2	403	30.498	74.420	22.060	1.00	0.00
ATOM	1401	C	ASP	2	403	31.161	73.316	22.869	1.00	0.00
ATOM	1402	O	ASP	2	403	30.495	72.678	23.690	1.00	0.00
ATOM	1403	CB	ASP	2	403	30.534	75.752	22.836	1.00	0.00
ATOM	1404	CG	ASP	2	403	31.956	76.263	23.031	1.00	0.00
ATOM	1405	OD1	ASP	2	403	32.691	76.322	22.051	1.00	0.00
ATOM	1406	OD2	ASP	2	403	32.331	76.599	24.154	1.00	0.00
ATOM	1407	H	ASP	2	403	28.387	74.269	22.386	1.00	0.00
ATOM	1408	N	LYS	2	404	32.469	73.098	22.639	1.00	0.00
ATOM	1409	CA	LYS	2	404	33.061	72.033	23.457	1.00	0.00
ATOM	1410	C	LYS	2	404	34.342	72.353	24.218	1.00	0.00
ATOM	1411	O	LYS	2	404	34.394	72.207	25.441	1.00	0.00
ATOM	1412	CB	LYS	2	404	33.216	70.687	22.723	1.00	0.00
ATOM	1413	CG	LYS	2	404	33.094	69.547	23.750	1.00	0.00
ATOM	1414	CD	LYS	2	404	33.852	68.245	23.463	1.00	0.00
ATOM	1415	CE	LYS	2	404	33.352	67.394	22.295	1.00	0.00
ATOM	1416	NZ	LYS	2	404	34.259	66.255	22.103	1.00	0.00
ATOM	1417	H	LYS	2	404	32.986	73.734	22.056	1.00	0.00
ATOM	1418	1HZ	LYS	2	404	33.959	65.405	22.612	1.00	0.00
ATOM	1419	2HZ	LYS	2	404	34.398	66.018	21.104	1.00	0.00
ATOM	1420	3HZ	LYS	2	404	35.190	66.533	22.454	1.00	0.00
ATOM	1421	N	GLY	2	405	35.361	72.756	23.444	1.00	0.00
ATOM	1422	CA	GLY	2	405	36.660	73.027	24.065	1.00	0.00
ATOM	1423	C	GLY	2	405	37.572	71.815	24.165	1.00	0.00

ATOM	1424	O	GLY	2	405	38.013	71.397	25.240	1.00	0.00
ATOM	1425	H	GLY	2	405	35.233	72.824	22.455	1.00	0.00
ATOM	1426	N	GLU	2	406	37.858	71.239	22.988	1.00	0.00
ATOM	1427	CA	GLU	2	406	38.841	70.155	23.034	1.00	0.00
ATOM	1428	C	GLU	2	406	40.226	70.662	23.448	1.00	0.00
ATOM	1429	O	GLU	2	406	40.824	71.525	22.810	1.00	0.00
ATOM	1430	CB	GLU	2	406	38.882	69.401	21.696	1.00	0.00
ATOM	1431	CG	GLU	2	406	37.505	69.104	21.074	1.00	0.00
ATOM	1432	CD	GLU	2	406	36.885	67.763	21.460	1.00	0.00
ATOM	1433	OE1	GLU	2	406	36.274	67.140	20.612	1.00	0.00
ATOM	1434	OE2	GLU	2	406	36.944	67.309	22.592	1.00	0.00
ATOM	1435	H	GLU	2	406	37.604	71.743	22.168	1.00	0.00
ATOM	1436	N	CYS	2	407	40.671	70.094	24.576	1.00	0.00
ATOM	1437	CA	CYS	2	407	41.855	70.695	25.174	1.00	0.00
ATOM	1438	C	CYS	2	407	43.163	69.990	24.898	1.00	0.00
ATOM	1439	O	CYS	2	407	43.321	68.773	25.009	1.00	0.00
ATOM	1440	CB	CYS	2	407	41.654	70.853	26.678	1.00	0.00
ATOM	1441	SG	CYS	2	407	43.020	71.687	27.536	1.00	0.00
ATOM	1442	H	CYS	2	407	40.134	69.408	25.059	1.00	0.00
ATOM	1443	N	GLY	2	408	44.141	70.862	24.585	1.00	0.00
ATOM	1444	CA	GLY	2	408	45.548	70.490	24.757	1.00	0.00
ATOM	1445	C	GLY	2	408	45.878	70.421	26.233	1.00	0.00
ATOM	1446	O	GLY	2	408	46.262	71.391	26.880	1.00	0.00
ATOM	1447	H	GLY	2	408	43.879	71.819	24.457	1.00	0.00
ATOM	1448	N	SER	2	409	45.569	69.225	26.751	1.00	0.00
ATOM	1449	CA	SER	2	409	45.345	69.080	28.185	1.00	0.00
ATOM	1450	C	SER	2	409	46.609	68.994	29.024	1.00	0.00
ATOM	1451	O	SER	2	409	46.953	67.948	29.551	1.00	0.00
ATOM	1452	CB	SER	2	409	44.419	67.879	28.430	1.00	0.00
ATOM	1453	OG	SER	2	409	43.214	67.996	27.641	1.00	0.00
ATOM	1454	H	SER	2	409	45.468	68.466	26.107	1.00	0.00
ATOM	1455	HG	SER	2	409	43.506	68.029	26.726	1.00	0.00
ATOM	1456	N	GLY	2	410	47.282	70.150	29.146	1.00	0.00
ATOM	1457	CA	GLY	2	410	48.557	70.142	29.860	1.00	0.00
ATOM	1458	C	GLY	2	410	49.702	69.883	28.904	1.00	0.00
ATOM	1459	O	GLY	2	410	50.326	68.828	28.875	1.00	0.00
ATOM	1460	H	GLY	2	410	46.979	70.927	28.591	1.00	0.00
ATOM	1461	N	GLY	2	411	49.922	70.906	28.072	1.00	0.00
ATOM	1462	CA	GLY	2	411	50.778	70.643	26.922	1.00	0.00
ATOM	1463	C	GLY	2	411	49.984	69.827	25.928	1.00	0.00
ATOM	1464	O	GLY	2	411	48.825	70.128	25.666	1.00	0.00
ATOM	1465	H	GLY	2	411	49.363	71.729	28.131	1.00	0.00
ATOM	1466	N	GLY	2	412	50.636	68.774	25.425	1.00	0.00
ATOM	1467	CA	GLY	2	412	49.882	67.855	24.580	1.00	0.00
ATOM	1468	C	GLY	2	412	49.566	68.412	23.208	1.00	0.00
ATOM	1469	O	GLY	2	412	50.432	68.550	22.346	1.00	0.00
ATOM	1470	H	GLY	2	412	51.603	68.629	25.623	1.00	0.00
ATOM	1471	N	ASP	2	413	48.272	68.689	23.035	1.00	0.00
ATOM	1472	CA	ASP	2	413	47.825	69.187	21.736	1.00	0.00
ATOM	1473	C	ASP	2	413	48.251	70.636	21.536	1.00	0.00
ATOM	1474	O	ASP	2	413	48.822	71.269	22.425	1.00	0.00
ATOM	1475	CB	ASP	2	413	46.310	68.969	21.551	1.00	0.00
ATOM	1476	CG	ASP	2	413	45.970	67.482	21.524	1.00	0.00
ATOM	1477	OD1	ASP	2	413	45.683	66.934	20.460	1.00	0.00
ATOM	1478	OD2	ASP	2	413	46.017	66.816	22.557	1.00	0.00
ATOM	1479	H	ASP	2	413	47.673	68.730	23.835	1.00	0.00
ATOM	1480	N	SER	2	414	48.012	71.112	20.310	1.00	0.00
ATOM	1481	CA	SER	2	414	48.670	72.575	19.990	1.00	0.00
ATOM	1482	C	SER	2	414	47.878	73.146	18.965	1.00	0.00
ATOM	1483	O	SER	2	414	48.142	73.109	17.764	1.00	0.00
ATOM	1484	CB	SER	2	414	50.117	72.112	19.545	1.00	0.00
ATOM	1485	OG	SER	2	414	50.870	73.331	19.491	1.00	0.00

ATOM	1486	H	SER	2	414	47.454	70.606	19.653	1.00	0.00
ATOM	1487	HG	SER	2	414	50.656	73.720	18.648	1.00	0.00
ATOM	1488	N	LYS	2	415	46.856	73.813	19.498	1.00	0.00
ATOM	1489	CA	LYS	2	415	45.914	74.499	18.636	1.00	0.00
ATOM	1490	C	LYS	2	415	45.625	75.893	19.182	1.00	0.00
ATOM	1491	O	LYS	2	415	45.427	76.064	20.378	1.00	0.00
ATOM	1492	CB	LYS	2	415	44.647	73.639	18.527	1.00	0.00
ATOM	1493	CG	LYS	2	415	43.624	74.050	17.461	1.00	0.00
ATOM	1494	CD	LYS	2	415	42.224	74.241	18.062	1.00	0.00
ATOM	1495	CE	LYS	2	415	41.854	75.694	18.399	1.00	0.00
ATOM	1496	NZ	LYS	2	415	42.985	76.385	19.026	1.00	0.00
ATOM	1497	OXT	LYS	2	415	45.530	76.839	18.419	1.00	0.00
ATOM	1498	H	LYS	2	415	46.709	73.853	20.485	1.00	0.00
ATOM	1499	1HZ	LYS	2	415	42.762	77.304	19.442	1.00	0.00
ATOM	1500	2HZ	LYS	2	415	43.511	75.800	19.714	1.00	0.00
ATOM	1501	3HZ	LYS	2	415	43.696	76.542	18.280	1.00	0.00
ATOM	1502	N	SER	1	1	47.032	42.057	10.492	1.00	0.00
ATOM	1503	CA	SER	1	1	47.303	43.393	11.035	1.00	0.00
ATOM	1504	C	SER	1	1	45.995	43.897	11.603	1.00	0.00
ATOM	1505	O	SER	1	1	45.273	43.066	12.151	1.00	0.00
ATOM	1506	CB	SER	1	1	47.891	44.212	9.881	1.00	0.00
ATOM	1507	OG	SER	1	1	48.673	43.317	9.061	1.00	0.00
ATOM	1508	1H	SER	1	1	46.308	42.167	9.754	1.00	0.00
ATOM	1509	2H	SER	1	1	47.899	41.688	10.059	1.00	0.00
ATOM	1510	3H	SER	1	1	46.666	41.421	11.224	1.00	0.00
ATOM	1511	HG	SER	1	1	49.404	43.807	8.675	1.00	0.00
ATOM	1512	N	SER	1	2	45.652	45.188	11.346	1.00	0.00
ATOM	1513	CA	SER	1	2	44.220	45.473	11.210	1.00	0.00
ATOM	1514	C	SER	1	2	43.609	44.454	10.253	1.00	0.00
ATOM	1515	O	SER	1	2	44.146	44.205	9.173	1.00	0.00
ATOM	1516	CB	SER	1	2	44.005	46.923	10.745	1.00	0.00
ATOM	1517	OG	SER	1	2	44.631	47.851	11.662	1.00	0.00
ATOM	1518	H	SER	1	2	46.315	45.897	11.131	1.00	0.00
ATOM	1519	HG	SER	1	2	44.355	48.734	11.408	1.00	0.00
ATOM	1520	N	GLU	1	3	42.591	43.791	10.797	1.00	0.00
ATOM	1521	CA	GLU	1	3	42.407	42.382	10.459	1.00	0.00
ATOM	1522	C	GLU	1	3	41.603	42.196	9.171	1.00	0.00
ATOM	1523	O	GLU	1	3	41.620	43.062	8.294	1.00	0.00
ATOM	1524	CB	GLU	1	3	41.817	41.743	11.723	1.00	0.00
ATOM	1525	CG	GLU	1	3	42.113	40.280	12.056	1.00	0.00
ATOM	1526	CD	GLU	1	3	41.142	39.801	13.129	1.00	0.00
ATOM	1527	OE1	GLU	1	3	40.555	38.740	12.957	1.00	0.00
ATOM	1528	OE2	GLU	1	3	40.960	40.463	14.150	1.00	0.00
ATOM	1529	H	GLU	1	3	42.096	44.187	11.566	1.00	0.00
ATOM	1530	N	ASN	1	4	40.887	41.056	9.065	1.00	0.00
ATOM	1531	CA	ASN	1	4	39.950	41.050	7.941	1.00	0.00
ATOM	1532	C	ASN	1	4	38.711	41.864	8.303	1.00	0.00
ATOM	1533	O	ASN	1	4	38.269	42.742	7.566	1.00	0.00
ATOM	1534	CB	ASN	1	4	39.643	39.620	7.453	1.00	0.00
ATOM	1535	CG	ASN	1	4	39.405	39.557	5.939	1.00	0.00
ATOM	1536	OD1	ASN	1	4	39.976	38.757	5.203	1.00	0.00
ATOM	1537	ND2	ASN	1	4	38.475	40.408	5.484	1.00	0.00
ATOM	1538	H	ASN	1	4	40.809	40.427	9.834	1.00	0.00
ATOM	1539	1HD2	ASN	1	4	38.246	40.274	4.521	1.00	0.00
ATOM	1540	2HD2	ASN	1	4	38.028	41.112	6.038	1.00	0.00
ATOM	1541	N	ARG	1	5	38.209	41.597	9.521	1.00	0.00
ATOM	1542	CA	ARG	1	5	37.366	42.620	10.140	1.00	0.00
ATOM	1543	C	ARG	1	5	38.061	43.092	11.403	1.00	0.00
ATOM	1544	O	ARG	1	5	38.982	42.450	11.979	1.00	0.00
ATOM	1545	CB	ARG	1	5	35.963	42.101	10.485	1.00	0.00
ATOM	1546	CG	ARG	1	5	35.150	41.522	9.320	1.00	0.00
ATOM	1547	CD	ARG	1	5	34.826	42.488	8.168	1.00	0.00

ATOM	1548	NE	ARG	1	5	33.966	43.612	8.557	1.00	0.00
ATOM	1549	CZ	ARG	1	5	32.613	43.507	8.590	1.00	0.00
ATOM	1550	NH1	ARG	1	5	31.306	44.603	8.845	1.00	0.00
ATOM	1551	NH2	ARG	1	5	31.978	42.355	8.395	1.00	0.00
ATOM	1552	H	ARG	1	5	38.562	40.873	10.117	1.00	0.00
ATOM	1553	HE	ARG	1	5	34.360	44.527	8.685	1.00	0.00
ATOM	1554	1HH1	ARG	1	5	30.903	44.563	8.878	1.00	0.00
ATOM	1555	2HH1	ARG	1	5	32.339	45.497	9.006	1.00	0.00
ATOM	1556	1HH2	ARG	1	5	30.975	42.325	8.443	1.00	0.00
ATOM	1557	2HH2	ARG	1	5	32.464	41.509	8.198	1.00	0.00
ATOM	1558	N	THR	1	6	37.630	44.240	11.923	1.00	0.00
ATOM	1559	CA	THR	1	6	38.078	44.601	13.272	1.00	0.00
ATOM	1560	C	THR	1	6	36.953	45.404	13.890	1.00	0.00
ATOM	1561	O	THR	1	6	36.277	46.127	13.150	1.00	0.00
ATOM	1562	CB	THR	1	6	39.404	45.370	13.322	1.00	0.00
ATOM	1563	OG1	THR	1	6	40.179	44.957	12.078	1.00	0.00
ATOM	1564	CG2	THR	1	6	40.215	45.127	14.494	1.00	0.00
ATOM	1565	H	THR	1	6	36.926	44.787	11.480	1.00	0.00
ATOM	1566	HG1	THR	1	6	40.113	43.999	12.080	1.00	0.00
ATOM	1567	N	ILE	1	7	36.664	45.177	15.173	1.00	0.00
ATOM	1568	CA	ILE	1	7	35.285	45.481	15.574	1.00	0.00
ATOM	1569	C	ILE	1	7	35.103	46.750	16.418	1.00	0.00
ATOM	1570	O	ILE	1	7	35.844	47.042	17.360	1.00	0.00
ATOM	1571	CB	ILE	1	7	34.716	44.203	16.225	1.00	0.00
ATOM	1572	CG1	ILE	1	7	34.863	42.999	15.286	1.00	0.00
ATOM	1573	CG2	ILE	1	7	33.258	44.332	16.677	1.00	0.00
ATOM	1574	CD1	ILE	1	7	34.493	41.659	15.928	1.00	0.00
ATOM	1575	H	ILE	1	7	37.296	44.708	15.797	1.00	0.00
ATOM	1576	N	VAL	1	8	34.076	47.518	16.032	1.00	0.00
ATOM	1577	CA	VAL	1	8	33.654	48.559	16.961	1.00	0.00
ATOM	1578	C	VAL	1	8	32.665	47.952	17.917	1.00	0.00
ATOM	1579	O	VAL	1	8	31.543	47.672	17.520	1.00	0.00
ATOM	1580	CB	VAL	1	8	33.015	49.706	16.170	1.00	0.00
ATOM	1581	CG1	VAL	1	8	32.197	50.704	16.994	1.00	0.00
ATOM	1582	CG2	VAL	1	8	34.117	50.416	15.411	1.00	0.00
ATOM	1583	H	VAL	1	8	33.477	47.180	15.313	1.00	0.00
ATOM	1584	N	VAL	1	9	33.095	47.729	19.159	1.00	0.00
ATOM	1585	CA	VAL	1	9	31.987	47.430	20.053	1.00	0.00
ATOM	1586	C	VAL	1	9	31.515	48.668	20.762	1.00	0.00
ATOM	1587	O	VAL	1	9	32.161	49.710	20.749	1.00	0.00
ATOM	1588	CB	VAL	1	9	32.249	46.273	21.025	1.00	0.00
ATOM	1589	CG1	VAL	1	9	32.126	44.957	20.264	1.00	0.00
ATOM	1590	CG2	VAL	1	9	33.547	46.405	21.823	1.00	0.00
ATOM	1591	H	VAL	1	9	34.023	47.889	19.488	1.00	0.00
ATOM	1592	N	THR	1	10	30.351	48.510	21.380	1.00	0.00
ATOM	1593	CA	THR	1	10	29.656	49.641	21.970	1.00	0.00
ATOM	1594	C	THR	1	10	28.529	49.125	22.832	1.00	0.00
ATOM	1595	O	THR	1	10	28.137	47.956	22.782	1.00	0.00
ATOM	1596	CB	THR	1	10	29.133	50.582	20.864	1.00	0.00
ATOM	1597	OG1	THR	1	10	28.571	51.785	21.420	1.00	0.00
ATOM	1598	CG2	THR	1	10	28.131	49.918	19.912	1.00	0.00
ATOM	1599	H	THR	1	10	29.880	47.636	21.310	1.00	0.00
ATOM	1600	HG1	THR	1	10	28.750	52.452	20.747	1.00	0.00
ATOM	1601	N	THR	1	11	27.992	50.044	23.634	1.00	0.00
ATOM	1602	CA	THR	1	11	26.693	49.704	24.190	1.00	0.00
ATOM	1603	C	THR	1	11	25.599	50.734	23.937	1.00	0.00
ATOM	1604	O	THR	1	11	25.038	51.364	24.829	1.00	0.00
ATOM	1605	CB	THR	1	11	26.793	49.340	25.665	1.00	0.00
ATOM	1606	OG1	THR	1	11	28.031	48.651	25.977	1.00	0.00
ATOM	1607	CG2	THR	1	11	25.566	48.494	26.025	1.00	0.00
ATOM	1608	H	THR	1	11	28.360	50.968	23.714	1.00	0.00
ATOM	1609	HG1	THR	1	11	28.083	47.958	25.314	1.00	0.00

ATOM	1610	N	ILE	1	12	25.241	50.640	22.645	1.00	0.00
ATOM	1611	CA	ILE	1	12	34.187	51.750	11.164	1.00	0.00
ATOM	1612	C	ILE	1	12	22.235	51.998	23.044	1.00	0.00
ATOM	1613	O	ILE	1	12	22.279	53.039	23.011	1.00	0.00
ATOM	1614	CB	ILE	1	12	23.924	51.283	20.748	1.00	0.00
ATOM	1615	CG1	ILE	1	12	22.875	52.249	20.042	1.00	0.00
ATOM	1616	CG2	ILE	1	12	23.270	49.851	20.802	1.00	0.00
ATOM	1617	CD1	ILE	1	12	22.271	51.637	18.787	1.00	0.00
ATOM	1618	H	ILE	1	12	25.862	50.401	22.001	1.00	0.00
ATOM	1619	N	LEU	1	13	22.644	50.991	23.889	1.00	0.00
ATOM	1620	CA	LEU	1	13	21.737	51.155	25.035	1.00	0.00
ATOM	1621	C	LEU	1	13	21.885	52.423	25.898	1.00	0.00
ATOM	1622	O	LEU	1	13	20.979	52.830	26.631	1.00	0.00
ATOM	1623	CB	LEU	1	13	21.860	49.895	25.900	1.00	0.00
ATOM	1624	CG	LEU	1	13	20.779	49.677	26.963	1.00	0.00
ATOM	1625	CD1	LEU	1	13	19.418	49.351	26.347	1.00	0.00
ATOM	1626	CD2	LEU	1	13	21.205	48/620	27.982	1.00	0.00
ATOM	1627	H	LEU	1	13	23.163	50.143	23.796	1.00	0.00
ATOM	1628	N	GLU	1	14	23.071	53.038	25.818	1.00	0.00
ATOM	1629	CA	GLU	1	14	23.379	54.247	26.581	1.00	0.00
ATOM	1630	C	GLU	1	14	22.920	55.529	25.891	1.00	0.00
ATOM	1631	O	GLU	1	14	22.182	55.537	24.907	1.00	0.00
ATOM	1632	CB	GLU	1	14	24.893	54.295	26.818	1.00	0.00
ATOM	1633	CG	GLU	1	14	25.478	53.048	27.490	1.00	0.00
ATOM	1634	CD	GLU	1	14	26.826	52.694	26.873	1.00	0.00
ATOM	1635	OE1	GLU	1	14	27.621	52.029	27.532	1.00	0.00
ATOM	1636	OE2	GLU	1	14	27.084	53.050	25.723	1.00	0.00
ATOM	1637	H	GLU	1	14	23.745	52.673	25.183	1.00	0.00
ATOM	1638	N	SER	1	15	23.429	56/635	26.429	1.00	0.00
ATOM	1639	CA	SER	1	15	23.322	57.982	25.688	1.00	0.00
ATOM	1640	C	SER	1	15	24.619	58.623	25.922	1.00	0.00
ATOM	1641	O	SER	1	15	25.236	58.447	26.974	1.00	0.00
ATOM	1642	CB	SER	1	15	23.106	58.664	26.175	1.00	0.00
ATOM	1643	OG	SER	1	15	20.982	57.777	26.322	1.00	0.00
ATOM	1644	H	SER	1	15	24.032	56.624	27.230	1.00	0.00
ATOM	1645	HG	SER	1	15	21.014	57.190	25.566	1.00	0.00
ATOM	1646	N	PRO	1	16	25.077	59.453	24.950	1.00	0.00
ATOM	1647	CA	PRO	1	16	24.267	59.970	23.837	1.00	0.00
ATOM	1648	C	PRO	1	16	24.185	59.219	22.518	1.00	0.00
ATOM	1649	O	PRO	1	16	23.929	59.885	21.515	1.00	0.00
ATOM	1650	CB	PRO	1	16	24.904	61.344	23.610	1.00	0.00
ATOM	1651	CG	PRO	1	16	26.383	61.125	23.849	1.00	0.00
ATOM	1652	CD	PRO	1	16	26.365	60.134	25.051	1.00	0.00
ATOM	1653	N	TYR	1	17	24.397	57.898	22.466	1.00	0.00
ATOM	1654	CA	TYR	1	17	24.621	57.373	21.108	1.00	0.00
ATOM	1655	C	TYR	1	17	23.441	56.977	20.212	1.00	0.00
ATOM	1656	O	TYR	1	17	23.176	55.836	19.816	1.00	0.00
ATOM	1657	CB	TYR	1	17	25.821	56.419	21.125	1.00	0.00
ATOM	1658	CG	TYR	1	17	27.001	57.257	21.573	1.00	0.00
ATOM	1659	CD1	TYR	1	17	27.470	58.286	20.727	1.00	0.00
ATOM	1660	CD2	TYR	1	17	27.557	57.041	22.850	1.00	0.00
ATOM	1661	CE1	TYR	1	17	28.413	59.203	21.216	1.00	0.00
ATOM	1662	CE2	TYR	1	17	28.494	57.964	23.343	1.00	0.00
ATOM	1663	CZ	TYR	1	17	28.859	59.070	22.545	1.00	0.00
ATOM	1664	OH	TYR	1	17	29.631	60.075	23.106	1.00	0.00
ATOM	1665	H	TYR	1	17	24.543	57.337	23.280	1.00	0.00
ATOM	1666	HH	TYR	1	17	30.011	60.589	22.388	1.00	0.00
ATOM	1667	N	VAL	1	18	22.736	58.066	19.862	1.00	0.00
ATOM	1668	CA	VAL	1	18	21.481	58.122	19.118	1.00	0.00
ATOM	1669	C	VAL	1	18	20.510	56.982	19.373	1.00	0.00
ATOM	1670	O	VAL	1	18	19.870	56.455	18.466	1.00	0.00
ATOM	1671	CB	VAL	1	18	21.722	58.395	17.618	1.00	0.00

ATOM	1672	CG1	VAL	1	18	20.470	58.900	16.886	1.00	0.00
ATOM	1673	CG2	VAL	1	18	22.818	59.442	17.448	1.00	0.00
ATOM	1674	H	VAL	1	18	23.172	58.919	20.124	1.00	0.00
ATOM	1675	N	MET	1	19	20.416	56.646	20.672	1.00	0.00
ATOM	1676	CA	MET	1	19	19.411	55.729	21.218	1.00	0.00
ATOM	1677	C	MET	1	19	19.359	54.357	20.571	1.00	0.00
ATOM	1678	O	MET	1	19	19.385	54.196	19.355	1.00	0.00
ATOM	1679	CB	MET	1	19	18.003	56.342	21.267	1.00	0.00
ATOM	1680	CG	MET	1	19	19.919	57.710	21.953	1.00	0.00
ATOM	1681	SD	MET	1	19	18.451	59.057	20.883	1.00	0.00
ATOM	1682	CE	MET	1	19	18.605	60.345	22.130	1.00	0.00
ATOM	1683	H	MET	1	19	21.226	56.864	21.212	1.00	0.00
ATOM	1684	N	TYR	1	20	19.296	53.346	21.445	1.00	0.00
ATOM	1685	CA	TYR	1	20	19.315	51.963	20.950	1.00	0.00
ATOM	1686	C	TYR	1	20	18.288	51.589	19.886	1.00	0.00
ATOM	1687	O	TYR	1	20	17.138	51.230	20.150	1.00	0.00
ATOM	1688	CB	TYR	1	20	19.332	50.953	22.115	1.00	0.00
ATOM	1689	CG	TYR	1	20	18.214	51.159	23.121	1.00	0.00
ATOM	1690	CD1	TYR	1	20	18.376	52.114	24.147	1.00	0.00
ATOM	1691	CD2	TYR	1	20	17.046	50.374	23.021	1.00	0.00
ATOM	1692	CE1	TYR	1	20	17.354	52.284	25.094	1.00	0.00
ATOM	1693	CE2	TYR	1	20	16.021	50.546	23.966	1.00	0.00
ATOM	1694	CZ	TYR	1	20	16.191	51.495	24.993	1.00	0.00
ATOM	1695	OH	TYR	1	20	15.188	51.659	25.933	1.00	0.00
ATOM	1696	H	TYR	1	20	19.220	53.552	22.422	1.00	0.00
ATOM	1697	HH	TYR	1	20	15.558	52.069	26.713	1.00	0.00
ATOM	1698	N	LYS	1	21	18.727	51.670	18.624	1.00	0.00
ATOM	1699	CA	LYS	1	21	17.745	51.259	17.625	1.00	0.00
ATOM	1700	C	LYS	1	21	17.992	49.942	16.934	1.00	0.00
ATOM	1701	O	LYS	1	21	18.054	49.887	15.704	1.00	0.00
ATOM	1702	CB	LYS	1	21	17.437	52.349	16.592	1.00	0.00
ATOM	1703	CG	LYS	1	21	15.937	52.679	16.506	1.00	0.00
ATOM	1704	CD	LYS	1	21	14.952	51.545	16.153	1.00	0.00
ATOM	1705	CE	LYS	1	21	14.897	51.094	14.683	1.00	0.00
ATOM	1706	NZ	LYS	1	21	15.716	49.900	14.443	1.00	0.00
ATOM	1707	H	LYS	1	21	19.656	52.013	18.458	1.00	0.00
ATOM	1708	1HZ	LYS	1	21	15.348	49.074	14.964	1.00	0.00
ATOM	1709	2HZ	LYS	1	21	15.676	49.651	13.434	1.00	0.00
ATOM	1710	3HZ	LYS	1	21	16.712	50.016	14.713	1.00	0.00
ATOM	1711	N	LYS	1	22	18.041	48.882	17.756	1.00	0.00
ATOM	1712	CA	LYS	1	22	18.132	47.532	17.195	1.00	0.00
ATOM	1713	C	LYS	1	22	17.219	47.259	16.006	1.00	0.00
ATOM	1714	O	LYS	1	22	16.132	47.823	15.857	1.00	0.00
ATOM	1715	CB	LYS	1	22	17.979	46.475	18.295	1.00	0.00
ATOM	1716	CG	LYS	1	22	19.071	46.479	19.381	1.00	0.00
ATOM	1717	CD	LYS	1	22	20.492	46.228	18.857	1.00	0.00
ATOM	1718	CE	LYS	1	22	21.309	47.508	18.649	1.00	0.00
ATOM	1719	NZ	LYS	1	22	22.256	47.317	17.552	1.00	0.00
ATOM	1720	H	LYS	1	22	18.006	49.036	18.743	1.00	0.00
ATOM	1721	1HZ	LYS	1	22	21.759	46.903	16.740	1.00	0.00
ATOM	1722	2HZ	LYS	1	22	22.627	48.226	17.222	1.00	0.00
ATOM	1723	3HZ	LYS	1	22	23.007	46.635	17.766	1.00	0.00
ATOM	1724	N	ASN	1	23	17.786	46.448	15.112	1.00	0.00
ATOM	1725	CA	ASN	1	23	17.265	46.271	13.758	1.00	0.00
ATOM	1726	C	ASN	1	23	17.549	44.849	13.326	1.00	0.00
ATOM	1727	O	ASN	1	23	18.050	44.078	14.139	1.00	0.00
ATOM	1728	CB	ASN	1	23	17.952	47.248	12.807	1.00	0.00
ATOM	1729	CG	ASN	1	23	16.941	47.818	11.851	1.00	0.00
ATOM	1730	OD1	ASN	1	23	16.014	48.506	12.281	1.00	0.00
ATOM	1731	ND2	ASN	1	23	17.150	47.542	10.563	1.00	0.00
ATOM	1732	H	ASN	1	23	18.639	46.946	15.301	1.00	0.00
ATOM	1733	1HD2	ASN	1	23	16.536	47.864	9.846	1.00	0.00

ATOM	1734	2HD2	ASN	1	23	17.943	47.012	10.235	1.00	0.00
ATOM	1735	N	ASN	1	24	17.235	44.535	12.058	1.00	0.00
ATOM	1736	CA	ASN	1	24	17.395	43.143	11.634	1.00	0.00
ATOM	1737	C	ASN	1	24	17.212	42.912	10.147	1.00	0.00
ATOM	1738	O	ASN	1	24	16.276	42.251	9.709	1.00	0.00
ATOM	1739	CB	ASN	1	24	16.454	42.213	12.405	1.00	0.00
ATOM	1740	CG	ASN	1	24	17.134	40.878	12.591	1.00	0.00
ATOM	1741	OD1	ASN	1	24	16.721	39.864	12.041	1.00	0.00
ATOM	1742	ND2	ASN	1	24	18.176	40.914	13.430	1.00	0.00
ATOM	1743	H	ASN	1	24	16.913	45.204	11.392	1.00	0.00
ATOM	1744	1HD2	ASN	1	24	18.661	40.058	13.588	1.00	0.00
ATOM	1745	2HD2	ASN	1	24	18.410	41.784	13.866	1.00	0.00
ATOM	1746	N	GLU	1	25	18.139	43.499	9.374	1.00	0.00
ATOM	1747	CA	GLU	1	25	18.167	43.086	7.976	1.00	0.00
ATOM	1748	C	GLU	1	25	19.137	41.926	7.840	1.00	0.00
ATOM	1749	O	GLU	1	25	20.062	41.814	8.643	1.00	0.00
ATOM	1750	CB	GLU	1	25	18.498	44.286	7.071	1.00	0.00
ATOM	1751	CG	GLU	1	25	19.914	44.890	7.119	1.00	0.00
ATOM	1752	CD	GLU	1	25	20.307	45.419	8.491	1.00	0.00
ATOM	1753	OE1	GLU	1	25	19.564	46.177	9.109	1.00	0.00
ATOM	1754	OE2	GLU	1	25	21.384	45.076	8.951	1.00	0.00
ATOM	1755	H	GLU	1	25	18.875	44.054	9.732	1.00	0.00
ATOM	1756	N	GLN	1	26	18.889	41.056	6.847	1.00	0.00
ATOM	1757	CA	GLN	1	26	19.531	39.732	6.876	1.00	0.00
ATOM	1758	C	GLN	1	26	20.990	39.626	6.429	1.00	0.00
ATOM	1759	O	GLN	1	26	21.390	36.658	5.778	1.00	0.00
ATOM	1760	CB	GLN	1	26	18.678	38.708	6.110	1.00	0.00
ATOM	1761	CG	GLN	1	26	17.339	38.316	6.753	1.00	0.00
ATOM	1762	CD	GLN	1	26	16.354	39.469	6.735	1.00	0.00
ATOM	1763	OE1	GLN	1	26	15.833	39.880	5.703	1.00	0.00
ATOM	1764	NE2	GLN	1	26	16.130	39.992	7.938	1.00	0.00
ATOM	1765	H	GLN	1	26	18.174	41.239	6.166	1.00	0.00
ATOM	1766	1HE2	GLN	1	26	15.545	40.858	8.058	1.00	0.00
ATOM	1767	2HE2	GLN	1	26	16.516	39.503	8.773	1.00	0.00
ATOM	1768	N	LEU	1	27	21.758	40.668	6.807	1.00	0.00
ATOM	1769	CA	LEU	1	27	23.168	40.720	6.433	1.00	0.00
ATOM	1770	C	LEU	1	27	23.968	41.690	7.297	1.00	0.00
ATOM	1771	O	LEU	1	27	24.972	42.250	6.873	1.00	0.00
ATOM	1772	CB	LEU	1	27	23.305	41.074	4.943	1.00	0.00
ATOM	1773	CG	LEU	1	27	24.609	40.598	4.290	1.00	0.00
ATOM	1774	CD1	LEU	1	27	24.776	39.079	4.375	1.00	0.00
ATOM	1775	CD2	LEU	1	27	24.736	41.109	2.854	1.00	0.00
ATOM	1776	H	LEU	1	27	21.320	41.404	7.315	1.00	0.00
ATOM	1777	N	GLU	1	28	23.459	41.914	8.527	1.00	0.00
ATOM	1778	CA	GLU	1	28	24.060	42.782	9.563	1.00	0.00
ATOM	1779	C	GLU	1	28	24.309	44.273	9.326	1.00	0.00
ATOM	1780	O	GLU	1	28	24.505	45.044	10.264	1.00	0.00
ATOM	1781	CB	GLU	1	28	25.308	42.151	10.214	1.00	0.00
ATOM	1782	CG	GLU	1	28	26.698	42.480	9.617	1.00	0.00
ATOM	1783	CD	GLU	1	28	27.790	41.758	10.395	1.00	0.00
ATOM	1784	OE1	GLU	1	28	27.508	40.723	10.973	1.00	0.00
ATOM	1785	OE2	GLU	1	28	28.935	42.207	10.450	1.00	0.00
ATOM	1786	H	GLU	1	28	22.645	41.390	8.783	1.00	0.00
ATOM	1787	N	GLY	1	29	24.348	44.650	8.038	1.00	0.00
ATOM	1788	CA	GLY	1	29	24.998	45.904	7.666	1.00	0.00
ATOM	1789	C	GLY	1	29	24.547	47.150	8.405	1.00	0.00
ATOM	1790	O	GLY	1	29	25.358	47.972	8.842	1.00	0.00
ATOM	1791	H	GLY	1	29	24.153	43.954	7.355	1.00	0.00
ATOM	1792	N	ASN	1	30	23.212	47.263	8.472	1.00	0.00
ATOM	1793	CA	ASN	1	30	22.612	48.501	8.965	1.00	0.00
ATOM	1794	C	ASN	1	30	22.217	48.513	10.413	1.00	0.00
ATOM	1795	O	ASN	1	30	22.389	49.532	11.082	1.00	0.00

ATOM	1796	CB	ASN	1	30	21.422	48.940	8.120	1.00	0.00
ATOM	1797	CG	ASN	1	30	21.971	49.646	6.912	1.00	0.00
ATOM	1798	OD1	ASN	1	30	22.845	50.501	7.008	1.00	0.00
ATOM	1799	ND2	ASN	1	30	21.484	49.202	5.763	1.00	0.00
ATOM	1800	H	ASN	1	30	22.675	46.431	8.312	1.00	0.00
ATOM	1801	1HD2	ASN	1	30	21.820	49.588	4.905	1.00	0.00
ATOM	1802	2HD2	ASN	1	30	20.779	48.494	5.712	1.00	0.00
ATOM	1803	N	GLU	1	31	21.711	47.348	10.868	1.00	0.00
ATOM	1804	CA	GLU	1	31	21.351	47.068	12.262	1.00	0.00
ATOM	1805	C	GLU	1	31	21.898	48.089	13.237	1.00	0.00
ATOM	1806	O	GLU	1	31	23.100	48.202	13.412	1.00	0.00
ATOM	1807	CB	GLU	1	31	21.817	45.651	12.620	1.00	0.00
ATOM	1808	CG	GLU	1	31	21.110	44.977	13.804	1.00	0.00
ATOM	1809	CD	GLU	1	31	21.335	45.730	15.099	1.00	0.00
ATOM	1810	OE1	GLU	1	31	22.269	45.422	15.820	1.00	0.00
ATOM	1811	OE2	GLU	1	31	20.593	46.652	15.418	1.00	0.00
ATOM	1812	H	GLU	1	31	21.520	46.627	10.201	1.00	0.00
ATOM	1813	N	ARG	1	32	21.017	48.924	13.805	1.00	0.00
ATOM	1814	CA	ARG	1	32	21.534	50.184	14.222	1.00	0.00
ATOM	1815	C	ARG	1	32	22.729	50.149	15.274	1.00	0.00
ATOM	1816	O	ARG	1	32	22.607	49.779	16.436	1.00	0.00
ATOM	1817	CB	ARG	1	32	20.634	51.305	14.473	1.00	0.00
ATOM	1818	CG	ARG	1	32	20.856	52.397	13.422	1.00	0.00
ATOM	1819	CD	ARG	1	32	20.843	53.815	13.995	1.00	0.00
ATOM	1820	NE	ARG	1	32	21.877	53.966	15.017	1.00	0.00
ATOM	1821	CZ	ARG	1	32	21.557	54.361	16.270	1.00	0.00
ATOM	1822	NH1	ARG	1	32	22.511	54.352	17.188	1.00	0.00
ATOM	1823	NH2	ARG	1	32	20.314	54.719	16.578	1.00	0.00
ATOM	1824	H	ARG	1	32	20.112	48.610	14.084	1.00	0.00
ATOM	1825	HE	ARG	1	32	22.829	53.699	14.846	1.00	0.00
ATOM	1826	1HH1	ARG	1	32	23.435	54.026	16.968	1.00	0.00
ATOM	1827	2HH1	ARG	1	32	22.330	54.615	18.133	1.00	0.00
ATOM	1828	1HH2	ARG	1	32	20.085	54.891	17.541	1.00	0.00
ATOM	1829	2HH2	ARG	1	32	19.607	54.849	15.989	1.00	0.00
ATOM	1830	N	TYR	1	33	23.699	50.538	14.784	1.00	0.00
ATOM	1831	CA	TYR	1	33	25.025	50.585	15.715	1.00	0.00
ATOM	1832	C	TYR	1	33	25.194	52.007	16.204	1.00	0.00
ATOM	1833	O	TYR	1	33	24.355	52.825	15.804	1.00	0.00
ATOM	1834	CB	TYR	1	33	26.228	49.919	15.047	1.00	0.00
ATOM	1835	CG	TYR	1	33	25.888	48.462	14.763	1.00	0.00
ATOM	1836	CD1	TYR	1	33	25.902	47.980	13.434	1.00	0.00
ATOM	1837	CD2	TYR	1	33	25.568	47.615	15.845	1.00	0.00
ATOM	1838	CE1	TYR	1	33	25.641	46.613	13.192	1.00	0.00
ATOM	1839	CE2	TYR	1	33	25.314	46.255	15.504	1.00	0.00
ATOM	1840	CZ	TYR	1	33	25.387	45.757	14.287	1.00	0.00
ATOM	1841	OH	TYR	1	33	25.239	44.392	14.090	1.00	0.00
ATOM	1842	H	TYR	1	33	23.974	50.778	13.814	1.00	0.00
ATOM	1843	HH	TYR	1	33	25.245	44.015	14.970	1.00	0.00
ATOM	1844	N	GLU	1	34	26.194	52.266	17.080	1.00	0.00
ATOM	1845	CA	GLU	1	34	26.183	53.569	17.764	1.00	0.00
ATOM	1846	C	GLU	1	34	26.105	54.817	16.890	1.00	0.00
ATOM	1847	O	GLU	1	34	26.239	54.806	15.665	1.00	0.00
ATOM	1848	CB	GLU	1	34	27.215	53.643	18.919	1.00	0.00
ATOM	1849	CG	GLU	1	34	28.684	54.047	18.684	1.00	0.00
ATOM	1850	CD	GLU	1	34	28.956	55.514	19.011	1.00	0.00
ATOM	1851	OE1	GLU	1	34	28.301	56.386	18.474	1.00	0.00
ATOM	1852	OE2	GLU	1	34	29.849	55.831	19.790	1.00	0.00
ATOM	1853	H	GLU	1	34	26.823	51.551	17.373	1.00	0.00
ATOM	1854	N	GLY	1	35	25.729	55.900	17.584	1.00	0.00
ATOM	1855	CA	GLY	1	35	25.444	57.105	16.825	1.00	0.00
ATOM	1856	C	GLY	1	35	26.703	57.810	16.386	1.00	0.00
ATOM	1857	O	GLY	1	35	27.285	57.509	15.343	1.00	0.00

ATOM	1858	H	GLY	1	35	26.095	55.942	18.517	1.00	0.00
ATOM	1859	N	TYR	1	36	27.090	58.770	17.226	1.00	0.00
ATOM	1860	CA	TYR	1	36	28.194	59.639	16.834	1.00	0.00
ATOM	1861	C	TYR	1	36	29.509	58.939	16.496	1.00	0.00
ATOM	1862	O	TYR	1	36	30.058	59.071	15.413	1.00	0.00
ATOM	1863	CB	TYR	1	36	28.366	60.742	17.891	1.00	0.00
ATOM	1864	CG	TYR	1	36	29.555	61.623	17.582	1.00	0.00
ATOM	1865	CD1	TYR	1	36	30.353	62.051	18.658	1.00	0.00
ATOM	1866	CD2	TYR	1	36	29.858	61.955	16.243	1.00	0.00
ATOM	1867	CE1	TYR	1	36	31.525	62.764	18.378	1.00	0.00
ATOM	1868	CE2	TYR	1	36	31.046	62.630	15.963	1.00	0.00
ATOM	1869	CZ	TYR	1	36	31.866	63.014	17.035	1.00	0.00
ATOM	1870	OH	TYR	1	36	33.045	63.668	16.753	1.00	0.00
ATOM	1871	H	TYR	1	36	26.758	58.690	18.164	1.00	0.00
ATOM	1872	HH	TYR	1	36	33.412	63.310	15.941	1.00	0.00
ATOM	1873	N	CYS	1	37	30.018	58.198	17.474	1.00	0.00
ATOM	1874	CA	CYS	1	37	31.238	57.457	17.157	1.00	0.00
ATOM	1875	C	CYS	1	37	31.062	56.100	16.484	1.00	0.00
ATOM	1876	O	CYS	1	37	31.981	55.294	16.349	1.00	0.00
ATOM	1877	CB	CYS	1	37	32.156	57.390	18.373	1.00	0.00
ATOM	1878	SG	CYS	1	37	32.395	59.035	19.101	1.00	0.00
ATOM	1879	H	CYS	1	37	29.514	58.042	18.328	1.00	0.00
ATOM	1880	N	VAL	1	38	29.846	55.866	15.969	1.00	0.00
ATOM	1881	CA	VAL	1	38	29.923	54.999	14.798	1.00	0.00
ATOM	1882	C	VAL	1	38	30.145	55.768	13.514	1.00	0.00
ATOM	1883	O	VAL	1	38	30.839	55.302	12.620	1.00	0.00
ATOM	1884	CB	VAL	1	38	28.803	53.949	14.723	1.00	0.00
ATOM	1885	CG1	VAL	1	38	28.244	53.637	13.328	1.00	0.00
ATOM	1886	CG2	VAL	1	38	29.294	52.682	15.417	1.00	0.00
ATOM	1887	H	VAL	1	38	29.033	56.367	16.253	1.00	0.00
ATOM	1888	N	ASP	1	39	29.622	57.002	13.458	1.00	0.00
ATOM	1889	CA	ASP	1	39	29.863	57.865	12.288	1.00	0.00
ATOM	1890	C	ASP	1	39	31.322	58.314	12.168	1.00	0.00
ATOM	1891	O	ASP	1	39	31.989	58.296	11.129	1.00	0.00
ATOM	1892	CB	ASP	1	39	28.802	58.936	12.308	1.00	0.00
ATOM	1893	CG	ASP	1	39	29.307	60.403	12.000	1.00	0.00
ATOM	1894	OD1	ASP	1	39	28.990	60.956	10.958	1.00	0.00
ATOM	1895	OD2	ASP	1	39	29.999	60.989	12.818	1.00	0.00
ATOM	1896	H	ASP	1	39	29.100	57.372	14.226	1.00	0.00
ATOM	1897	N	LEU	1	40	31.857	58.672	13.353	1.00	0.00
ATOM	1898	CA	LEU	1	40	33.304	58.811	13.510	1.00	0.00
ATOM	1899	C	LEU	1	40	34.024	57.573	13.012	1.00	0.00
ATOM	1900	O	LEU	1	40	34.779	57.643	12.044	1.00	0.00
ATOM	1901	CB	LEU	1	40	33.673	59.157	14.958	1.00	0.00
ATOM	1902	CG	LEU	1	40	35.175	59.350	15.204	1.00	0.00
ATOM	1903	CD1	LEU	1	40	35.773	60.492	14.381	1.00	0.00
ATOM	1904	CD2	LEU	1	40	35.490	59.492	16.692	1.00	0.00
ATOM	1905	H	LEU	1	40	31.190	58.816	14.080	1.00	0.00
ATOM	1906	N	ALA	1	41	33.673	56.444	13.648	1.00	0.00
ATOM	1907	CA	ALA	1	41	34.130	55.160	13.129	1.00	0.00
ATOM	1908	C	ALA	1	41	33.970	54.920	11.638	1.00	0.00
ATOM	1909	O	ALA	1	41	34.778	54.197	11.075	1.00	0.00
ATOM	1910	CB	ALA	1	41	33.475	53.993	13.860	1.00	0.00
ATOM	1911	H	ALA	1	41	33.128	56.510	14.487	1.00	0.00
ATOM	1912	N	VAL	1	42	32.964	55.541	11.000	1.00	0.00
ATOM	1913	CA	VAL	1	42	32.879	55.340	9.550	1.00	0.00
ATOM	1914	C	VAL	1	42	34.136	55.808	8.832	1.00	0.00
ATOM	1915	O	VAL	1	42	34.684	55.126	7.966	1.00	0.00
ATOM	1916	CB	VAL	1	42	31.605	55.965	8.947	1.00	0.00
ATOM	1917	CG1	VAL	1	42	31.567	55.904	7.415	1.00	0.00
ATOM	1918	CG2	VAL	1	42	30.361	55.286	9.520	1.00	0.00
ATOM	1919	H	VAL	1	42	32.370	56.179	11.493	1.00	0.00

ATOM	1920	N	GLU	1	43	34.629	56.974	9.260	1.00	0.00
ATOM	1921	CA	GLU	1	43	35.939	57.298	8.714	1.00	0.00
ATOM	1922	C	GLU	1	43	37.165	56.694	9.389	1.00	0.00
ATOM	1923	O	GLU	1	43	38.229	56.677	8.792	1.00	0.00
ATOM	1924	CB	GLU	1	43	36.102	58.796	8.412	1.00	0.00
ATOM	1925	CG	GLU	1	43	35.403	59.272	7.115	1.00	0.00
ATOM	1926	CD	GLU	1	43	36.041	58.739	5.824	1.00	0.00
ATOM	1927	OE1	GLU	1	43	36.893	57.861	5.864	1.00	0.00
ATOM	1928	OE2	GLU	1	43	35.692	59.180	4.729	1.00	0.00
ATOM	1929	H	GLU	1	43	34.088	57.569	9.856	1.00	0.00
ATOM	1930	N	ILE	1	44	37.042	56.147	10.603	1.00	0.00
ATOM	1931	CA	ILE	1	44	38.247	55.435	11.069	1.00	0.00
ATOM	1932	C	ILE	1	44	38.433	54.102	10.332	1.00	0.00
ATOM	1933	O	ILE	1	44	39.487	53.733	9.799	1.00	0.00
ATOM	1934	CB	ILE	1	44	38.284	55.291	12.598	1.00	0.00
ATOM	1935	CG1	ILE	1	44	37.781	56.572	13.270	1.00	0.00
ATOM	1936	CG2	ILE	1	44	39.721	55.007	13.049	1.00	0.00
ATOM	1937	CD1	ILE	1	44	37.685	56.440	14.789	1.00	0.00
ATOM	1938	H	ILE	1	44	36.177	56.236	11.100	1.00	0.00
ATOM	1939	N	ALA	1	45	37.264	53.481	10.164	1.00	0.00
ATOM	1940	CA	ALA	1	45	37.118	52.429	9.168	1.00	0.00
ATOM	1941	C	ALA	1	45	37.696	52.838	7.826	1.00	0.00
ATOM	1942	O	ALA	1	45	38.604	52.198	7.304	1.00	0.00
ATOM	1943	CB	ALA	1	45	35.649	52.038	8.993	1.00	0.00
ATOM	1944	H	ALA	1	45	36.568	53.672	10.352	1.00	0.00
ATOM	1945	N	LYS	1	46	37.179	53.954	7.307	1.00	0.00
ATOM	1946	CA	LYS	1	46	37.516	54.307	5.928	1.00	0.00
ATOM	1947	C	LYS	1	46	38.627	55.335	5.672	1.00	0.00
ATOM	1948	O	LYS	1	46	38.754	55.906	4.579	1.00	0.00
ATOM	1949	CB	LYS	1	46	36.227	54.658	5.184	1.00	0.00
ATOM	1950	CG	LYS	1	46	36.207	54.291	3.696	1.00	0.00
ATOM	1951	CD	LYS	1	46	36.261	55.197	2.901	1.00	0.00
ATOM	1952	CE	LYS	1	46	35.899	56.499	2.384	1.00	0.00
ATOM	1953	NZ	LYS	1	46	36.640	57.192	3.437	1.00	0.00
ATOM	1954	H	LYS	1	46	36.474	54.440	7.826	1.00	0.00
ATOM	1955	1HZ	LYS	1	46	36.744	58.213	3.291	1.00	0.00
ATOM	1956	2HZ	LYS	1	46	36.128	57.187	4.346	1.00	0.00
ATOM	1957	3HZ	LYS	1	46	37.561	56.753	3.635	1.00	0.00
ATOM	1958	N	MET	1	47	39.475	55.534	6.698	1.00	0.00
ATOM	1959	CA	MET	1	47	40.732	56.229	6.410	1.00	0.00
ATOM	1960	C	MET	1	47	41.779	55.208	6.009	1.00	0.00
ATOM	1961	O	MET	1	47	42.510	55.330	5.027	1.00	0.00
ATOM	1962	CB	MET	1	47	41.193	57.061	7.611	1.00	0.00
ATOM	1963	CG	MET	1	47	42.325	58.040	7.284	1.00	0.00
ATOM	1964	SD	MET	1	47	42.856	58.984	8.721	1.00	0.00
ATOM	1965	CE	MET	1	47	43.993	60.110	7.898	1.00	0.00
ATOM	1966	H	MET	1	47	39.207	55.338	7.642	1.00	0.00
ATOM	1967	N	VAL	1	48	41.724	54.125	6.808	1.00	0.00
ATOM	1968	CA	VAL	1	48	42.380	52.861	6.469	1.00	0.00
ATOM	1969	C	VAL	1	48	41.741	52.170	5.264	1.00	0.00
ATOM	1970	O	VAL	1	48	42.405	51.585	4.417	1.00	0.00
ATOM	1971	CB	VAL	1	48	42.368	51.937	7.702	1.00	0.00
ATOM	1972	CG1	VAL	1	48	43.102	50.614	7.458	1.00	0.00
ATOM	1973	CG2	VAL	1	48	42.920	52.657	8.936	1.00	0.00
ATOM	1974	H	VAL	1	48	41.192	54.228	7.652	1.00	0.00
ATOM	1975	N	ARG	1	49	40.401	52.285	5.226	1.00	0.00
ATOM	1976	CA	ARG	1	49	39.515	51.624	4.250	1.00	0.00
ATOM	1977	C	ARG	1	49	39.246	50.155	4.532	1.00	0.00
ATOM	1978	O	ARG	1	49	39.057	49.314	3.658	1.00	0.00
ATOM	1979	CB	ARG	1	49	39.860	51.820	2.762	1.00	0.00
ATOM	1980	CG	ARG	1	49	39.836	53.257	2.229	1.00	0.00
ATOM	1981	CD	ARG	1	49	41.190	53.961	2.324	1.00	0.00

ATOM	1982	NE	ARG	1	49	42.210	53.192	1.610	1.00	0.00
ATOM	1983	CZ	ARG	1	49	43.511	53.272	1.955	1.00	0.00
ATOM	1984	NH1	ARG	1	49	44.408	52.590	1.248	1.00	0.00
ATOM	1985	NH2	ARG	1	49	43.897	54.033	2.978	1.00	0.00
ATOM	1986	H	ARG	1	49	40.006	52.729	6.031	1.00	0.00
ATOM	1987	HE	ARG	1	49	41.909	52.589	0.870	1.00	0.00
ATOM	1988	1HH1	ARG	1	49	45.385	52.656	1.440	1.00	0.00
ATOM	1989	2HH1	ARG	1	49	44.104	51.984	0.513	1.00	0.00
ATOM	1990	1HH2	ARG	1	49	44.856	54.196	3.201	1.00	0.00
ATOM	1991	2HH2	ARG	1	49	43.205	54.453	3.578	1.00	0.00
ATOM	1992	N	ILE	1	50	39.206	49.881	5.835	1.00	0.00
ATOM	1993	CA	ILE	1	50	38.465	48.676	6.201	1.00	0.00
ATOM	1994	C	ILE	1	50	37.031	49.128	6.464	1.00	0.00
ATOM	1995	O	ILE	1	50	36.792	50.325	6.603	1.00	0.00
ATOM	1996	CB	ILE	1	50	39.156	48.013	7.414	1.00	0.00
ATOM	1997	CG1	ILE	1	50	38.600	46.529	7.775	1.00	0.00
ATOM	1998	CG2	ILE	1	50	39.154	48.952	8.629	1.00	0.00
ATOM	1999	CD1	ILE	1	50	39.392	45.929	8.882	1.00	0.00
ATOM	2000	H	ILE	1	50	39.353	50.605	6.508	1.00	0.00
ATOM	2001	N	LYS	1	51	36.079	48.194	6.530	1.00	0.00
ATOM	2002	CA	LYS	1	51	34.892	48.605	7.265	1.00	0.00
ATOM	2003	C	LYS	1	51	34.707	47.725	8.477	1.00	0.00
ATOM	2004	O	LYS	1	51	34.801	46.495	8.429	1.00	0.00
ATOM	2005	CB	LYS	1	51	33.639	48.722	6.381	1.00	0.00
ATOM	2006	CG	LYS	1	51	32.586	49.643	7.022	1.00	0.00
ATOM	2007	CD	LYS	1	51	31.441	50.067	6.093	1.00	0.00
ATOM	2008	CE	LYS	1	51	30.449	51.017	6.782	1.00	0.00
ATOM	2009	NZ	LYS	1	51	29.443	51.501	5.821	1.00	0.00
ATOM	2010	H	LYS	1	51	36.198	47.246	6.242	1.00	0.00
ATOM	2011	1HZ	LYS	1	51	29.894	52.123	5.122	1.00	0.00
ATOM	2012	2HZ	LYS	1	51	28.989	50.724	5.307	1.00	0.00
ATOM	2013	3HZ	LYS	1	51	28.687	52.022	6.308	1.00	0.00
ATOM	2014	N	TYR	1	52	34.526	48.431	9.597	1.00	0.00
ATOM	2015	CA	TYR	1	52	34.487	47.731	10.875	1.00	0.00
ATOM	2016	C	TYR	1	52	33.276	46.843	10.982	1.00	0.00
ATOM	2017	O	TYR	1	52	32.355	46.909	10.166	1.00	0.00
ATOM	2018	CB	TYR	1	52	34.473	48.721	12.040	1.00	0.00
ATOM	2019	CG	TYR	1	52	35.713	49.584	12.113	1.00	0.00
ATOM	2020	CD1	TYR	1	52	35.554	50.920	12.529	1.00	0.00
ATOM	2021	CD2	TYR	1	52	36.981	49.047	11.807	1.00	0.00
ATOM	2022	CE1	TYR	1	52	36.686	51.728	12.701	1.00	0.00
ATOM	2023	CE2	TYR	1	52	38.112	49.866	11.940	1.00	0.00
ATOM	2024	CZ	TYR	1	52	37.946	51.190	12.389	1.00	0.00
ATOM	2025	OH	TYR	1	52	39.072	51.978	12.502	1.00	0.00
ATOM	2026	H	TYR	1	52	34.414	49.426	9.592	1.00	0.00
ATOM	2027	HH	TYR	1	52	38.902	62.637	13.179	1.00	0.00
ATOM	2028	N	LYS	1	53	33.292	45.988	12.103	1.00	0.00
ATOM	2029	CA	LYS	1	53	32.001	45.475	12.449	1.00	0.00
ATOM	2030	C	LYS	1	53	31.554	46.385	13.569	1.00	0.00
ATOM	2031	O	LYS	1	53	31.864	46.178	14.736	1.00	0.00
ATOM	2032	CB	LYS	1	53	32.095	44.015	12.907	1.00	0.00
ATOM	2033	CG	LYS	1	53	30.736	43.331	13.115	1.00	0.00
ATOM	2034	CD	LYS	1	53	30.842	42.007	13.884	1.00	0.00
ATOM	2035	CE	LYS	1	53	29.518	41.239	14.029	1.00	0.00
ATOM	2036	NZ	LYS	1	53	29.193	40.557	12.770	1.00	0.00
ATOM	2037	H	LYS	1	53	34.047	45.978	12.670	1.00	0.00
ATOM	2038	1HZ	LYS	1	53	29.093	41.231	11.977	1.00	0.00
ATOM	2039	2HZ	LYS	1	53	29.871	39.827	12.494	1.00	0.00
ATOM	2040	3HZ	LYS	1	53	28.245	40.125	12.772	1.00	0.00
ATOM	2041	N	LEU	1	54	30.878	47.455	13.134	1.00	0.00
ATOM	2042	CA	LEU	1	54	30.228	48.286	14.140	1.00	0.00
ATOM	2043	C	LEU	1	54	29.186	47.391	14.779	1.00	0.00

ATOM	2044	O	LEU	1	54	28.393	46.816	14.033	1.00	0.00
ATOM	2045	CB	LEU	1	54	29.548	49.456	13.424	1.00	0.00
ATOM	2046	CG	LEU	1	54	30.342	50.057	12.255	1.00	0.00
ATOM	2047	CD1	LEU	1	54	29.424	50.707	11.219	1.00	0.00
ATOM	2048	CD2	LEU	1	54	31.451	51.002	12.709	1.00	0.00
ATOM	2049	H	LEU	1	54	30.575	47.461	12.186	1.00	0.00
ATOM	2050	N	SER	1	55	29.251	47.248	16.102	1.00	0.00
ATOM	2051	CA	SER	1	55	28.540	46.131	16.711	1.00	0.00
ATOM	2052	C	SER	1	55	28.364	46.313	18.196	1.00	0.00
ATOM	2053	O	SER	1	55	29.096	47.015	18.895	1.00	0.00
ATOM	2054	CB	SER	1	55	29.233	44.784	16.435	1.00	0.00
ATOM	2055	OG	SER	1	55	28.325	43.633	16.602	1.00	0.00
ATOM	2056	H	SER	1	55	29.960	47.724	16.622	1.00	0.00
ATOM	2057	HG	SER	1	55	28.560	43.291	17.457	1.00	0.00
ATOM	2058	N	ILE	1	56	27.342	45.610	18.663	1.00	0.00
ATOM	2059	CA	ILE	1	56	27.296	45.299	20.073	1.00	0.00
ATOM	2060	C	ILE	1	56	27.607	43.811	20.153	1.00	0.00
ATOM	2061	O	ILE	1	56	27.284	43.050	19.236	1.00	0.00
ATOM	2062	CB	ILE	1	56	25.905	45.708	20.609	1.00	0.00
ATOM	2063	CG1	ILE	1	56	25.756	45.571	22.122	1.00	0.00
ATOM	2064	CG2	ILE	1	56	24.772	44.974	19.874	1.00	0.00
ATOM	2065	CD1	ILE	1	56	24.492	46.238	22.668	1.00	0.00
ATOM	2066	H	ILE	1	56	26.750	45.100	18.038	1.00	0.00
ATOM	2067	N	VAL	1	57	28.296	43.397	21.216	1.00	0.00
ATOM	2068	CA	VAL	1	57	28.397	41.947	21.398	1.00	0.00
ATOM	2069	C	VAL	1	57	27.314	41.502	22.274	1.00	0.00
ATOM	2070	O	VAL	1	57	26.175	41.226	21.995	1.00	0.00
ATOM	2071	CB	VAL	1	57	29.836	41.509	21.756	1.00	0.00
ATOM	2072	CG1	VAL	1	57	30.623	41.264	20.467	1.00	0.00
ATOM	2073	CG2	VAL	1	57	30.588	42.485	22.676	1.00	0.00
ATOM	2074	H	VAL	1	57	28.537	44.072	21.920	1.00	0.00
ATOM	2075	N	GLY	1	58	27.672	41.580	23.667	1.00	0.00
ATOM	2076	CA	GLY	1	58	26.771	42.256	24.596	1.00	0.00
ATOM	2077	C	GLY	1	58	27.313	42.651	24.867	1.00	0.00
ATOM	2078	O	GLY	1	58	27.892	44.257	23.974	1.00	0.00
ATOM	2079	H	GLY	1	58	28.633	41.462	23.908	1.00	0.00
ATOM	2080	N	ASP	1	59	27.118	44.099	26.117	1.00	0.00
ATOM	2081	CA	ASP	1	59	27.586	45.411	26.595	1.00	0.00
ATOM	2082	C	ASP	1	59	29.115	45.537	26.531	1.00	0.00
ATOM	2083	O	ASP	1	59	29.777	44.557	26.222	1.00	0.00
ATOM	2084	CB	ASP	1	59	26.967	45.581	28.001	1.00	0.00
ATOM	2085	CG	ASP	1	59	27.505	46.766	28.779	1.00	0.00
ATOM	2086	OD1	ASP	1	59	26.994	47.872	28.690	1.00	0.00
ATOM	2087	OD2	ASP	1	59	28.492	46.600	29.480	1.00	0.00
ATOM	2088	H	ASP	1	59	26.735	43.438	26.752	1.00	0.00
ATOM	2089	N	GLY	1	60	29.692	46.718	26.838	1.00	0.00
ATOM	2090	CA	GLY	1	60	31.143	46.911	26.704	1.00	0.00
ATOM	2091	C	GLY	1	60	31.910	46.976	28.022	1.00	0.00
ATOM	2092	O	GLY	1	60	33.034	47.460	28.135	1.00	0.00
ATOM	2093	H	GLY	1	60	29.076	47.437	27.153	1.00	0.00
ATOM	2094	N	LYS	1	61	31.238	46.456	29.052	1.00	0.00
ATOM	2095	CA	LYS	1	61	31.826	46.305	30.392	1.00	0.00
ATOM	2096	C	LYS	1	61	31.514	44.929	30.954	1.00	0.00
ATOM	2097	O	LYS	1	61	32.333	44.249	31.562	1.00	0.00
ATOM	2098	CB	LYS	1	61	31.344	47.405	31.343	1.00	0.00
ATOM	2099	CG	LYS	1	61	31.823	48.793	30.905	1.00	0.00
ATOM	2100	CD	LYS	1	61	30.849	49.923	31.249	1.00	0.00
ATOM	2101	CE	LYS	1	61	29.407	49.631	30.813	1.00	0.00
ATOM	2102	NZ	LYS	1	61	29.337	49.205	29.416	1.00	0.00
ATOM	2103	H	LYS	1	61	30.272	46.270	28.900	1.00	0.00
ATOM	2104	1HZ	LYS	1	61	30.233	48.774	29.139	1.00	0.00
ATOM	2105	2HZ	LYS	1	61	28.590	48.483	29.335	1.00	0.00

ATOM	2106	3HZ	LYS	1	61	29.119	49.993	28.783	1.00	0.00
ATOM	2107	N	TYR	1	62	30.286	44.482	30.615	1.00	0.00
ATOM	2108	CA	TYR	1	62	30.141	43.031	30.501	1.00	0.00
ATOM	2109	C	TYR	1	62	31.020	42.477	29.378	1.00	0.00
ATOM	2110	O	TYR	1	62	31.826	41.570	29.556	1.00	0.00
ATOM	2111	CB	TYR	1	62	28.643	42.644	30.381	1.00	0.00
ATOM	2112	CG	TYR	1	62	28.438	41.432	39.492	1.00	0.00
ATOM	2113	CD1	TYR	1	62	27.965	41.655	28.186	1.00	0.00
ATOM	2114	CD2	TYR	1	62	28.788	40.141	29.946	1.00	0.00
ATOM	2115	CE1	TYR	1	62	27.990	40.600	27.265	1.00	0.00
ATOM	2116	CE2	TYR	1	62	28.806	39.081	29.022	1.00	0.00
ATOM	2117	CZ	TYR	1	62	28.463	39.343	27.679	1.00	0.00
ATOM	2118	OH	TYR	1	62	28.625	38.359	26.722	1.00	0.00
ATOM	2119	H	TYR	1	62	29.552	45.085	30.301	1.00	0.00
ATOM	2120	HH	TYR	1	62	28.154	37.570	27.009	1.00	0.00
ATOM	2121	N	GLY	1	63	30.851	43.057	28.188	1.00	0.00
ATOM	2122	CA	GLY	1	63	31.674	42.548	27.089	1.00	0.00
ATOM	2123	C	GLY	1	63	32.965	43.312	26.911	1.00	0.00
ATOM	2124	O	GLY	1	63	33.559	43.350	25.836	1.00	0.00
ATOM	2125	H	GLY	1	63	20.177	43.782	28.051	1.00	0.00
ATOM	2126	N	ALA	1	64	33.409	43.868	28.062	1.00	0.00
ATOM	2127	CA	ALA	1	64	34.805	44.289	28.103	1.00	0.00
ATOM	2128	C	ALA	1	64	35.716	43.095	27.917	1.00	0.00
ATOM	2129	O	ALA	1	64	36.748	43.174	27.272	1.00	0.00
ATOM	2130	CB	ALA	1	64	35.142	44.959	29.434	1.00	0.00
ATOM	2131	H	ALA	1	64	32.920	43.717	28.916	1.00	0.00
ATOM	2132	N	ARG	1	65	35.218	41.933	28.420	1.00	0.00
ATOM	2133	CA	ARG	1	65	35.967	40.675	28.267	1.00	0.00
ATOM	2134	C	ARG	1	65	36.173	40.123	26.845	1.00	0.00
ATOM	2135	O	ARG	1	65	36.498	38.956	26.625	1.00	0.00
ATOM	2136	CB	ARG	1	65	35.450	39.618	29.278	1.00	0.00
ATOM	2137	CG	ARG	1	65	34.476	38.519	28.807	1.00	0.00
ATOM	2138	CD	ARG	1	65	33.220	39.070	28.134	1.00	0.00
ATOM	2139	NE	ARG	1	65	32.486	38.097	27.327	1.00	0.00
ATOM	2140	CZ	ARG	1	65	32.827	37.913	26.025	1.00	0.00
ATOM	2141	NH1	ARG	1	65	31.908	37.560	25.143	1.00	0.00
ATOM	2142	NH2	ARG	1	65	34.057	38.120	25.572	1.00	0.00
ATOM	2143	H	ARG	1	65	34.359	42.009	28.928	1.00	0.00
ATOM	2144	HE	ARG	1	65	31.613	37.735	27.656	1.00	0.00
ATOM	2145	1HH1	ARG	1	65	32.170	37.531	24.178	1.00	0.00
ATOM	2146	2HH1	ARG	1	65	30.970	37.352	25.419	1.00	0.00
ATOM	2147	1HH2	ARG	1	65	34.207	38.219	24.578	1.00	0.00
ATOM	2148	2HH2	ARG	1	65	34.850	38.202	26.178	1.00	0.00
ATOM	2149	N	ASP	1	66	35.896	40.978	25.853	1.00	0.00
ATOM	2150	CA	ASP	1	66	36.121	40.556	24.472	1.00	0.00
ATOM	2151	C	ASP	1	66	37.546	40.632	23.899	1.00	0.00
ATOM	2152	O	ASP	1	66	38.069	39.600	23.474	1.00	0.00
ATOM	2153	CB	ASP	1	66	35.018	41.132	23.566	1.00	0.00
ATOM	2154	CG	ASP	1	66	34.022	40.038	23.253	1.00	0.00
ATOM	2155	OD1	ASP	1	66	32.994	40.080	23.719	1.00	0.00
ATOM	2156	OD2	ASP	1	66	34.397	39.109	22.558	1.00	0.00
ATOM	2157	H	ASP	1	66	35.708	41.943	26.032	1.00	0.00
ATOM	2158	N	PRO	1	67	38.197	41.829	23.900	1.00	0.00
ATOM	2159	CA	PRO	1	67	39.592	41.943	23.431	1.00	0.00
ATOM	2160	C	PRO	1	67	40.542	40.772	23.697	1.00	0.00
ATOM	2161	O	PRO	1	67	41.195	40.190	22.821	1.00	0.00
ATOM	2162	CB	PRO	1	67	40.039	43.191	24.185	1.00	0.00
ATOM	2163	CG	PRO	1	67	38.815	44.096	24.270	1.00	0.00
ATOM	2164	CD	PRO	1	67	37.663	43.116	24.342	1.00	0.00
ATOM	2165	N	GLU	1	68	40.582	40.505	25.014	1.00	0.00
ATOM	2166	CA	GLU	1	68	41.552	39.535	25.674	1.00	0.00
ATOM	2167	C	GLU	1	68	41.507	38.206	25.177	1.00	0.00

ATOM	2168	O	GLU	1	68	42.484	37.464	25.113	1.00	0.00
ATOM	2169	CB	GLU	1	68	41.334	39.636	27.200	1.00	0.00
ATOM	2170	CG	GLU	1	68	40.996	40.976	27.886	1.00	0.00
ATOM	2171	CD	GLU	1	68	39.489	41.159	28.050	1.00	0.00
ATOM	2172	OE1	GLU	1	68	38.980	41.005	29.158	1.00	0.00
ATOM	2173	OE2	GLU	1	68	38.802	41.457	27.078	1.00	0.00
ATOM	2174	H	GLU	1	68	39.884	40.900	25.604	1.00	0.00
ATOM	2175	N	THR	1	69	40.284	37.824	24.803	1.00	0.00
ATOM	2176	CA	THR	1	69	40.084	36.472	24.295	1.00	0.00
ATOM	2177	C	THR	1	69	40.920	36.110	23.056	1.00	0.00
ATOM	2178	O	THR	1	69	41.215	34.952	22.749	1.00	0.00
ATOM	2179	CB	THR	1	69	38.564	36.229	24.163	1.00	0.00
ATOM	2180	OG1	THR	1	69	38.197	34.952	24.692	1.00	0.00
ATOM	2181	CG2	THR	1	69	37.988	36.443	22.761	1.00	0.00
ATOM	2182	H	THR	1	69	39.531	38.466	24.924	1.00	0.00
ATOM	2183	HG1	THR	1	69	37.248	34.948	24.706	1.00	0.00
ATOM	2184	N	LYS	1	70	41.354	37.171	22.347	1.00	0.00
ATOM	2185	CA	LYS	1	70	42.185	36.868	21.187	1.00	0.00
ATOM	2186	C	LYS	1	70	43.665	36.656	21.455	1.00	0.00
ATOM	2187	O	LYS	1	70	44.531	37.349	20.916	1.00	0.00
ATOM	2188	CB	LYS	1	70	41.956	37.879	20.061	1.00	0.00
ATOM	2189	CG	LYS	1	70	42.149	37.240	18.681	1.00	0.00
ATOM	2190	CD	LYS	1	70	41.757	38.167	17.539	1.00	0.00
ATOM	2191	CE	LYS	1	70	41.412	37.473	16.222	1.00	0.00
ATOM	2192	NZ	LYS	1	70	40.366	38.264	15.549	1.00	0.00
ATOM	2193	H	LYS	1	70	41.220	38.100	22.702	1.00	0.00
ATOM	2194	1HZ	LYS	1	70	39.454	38.204	16.058	1.00	0.00
ATOM	2195	2HZ	LYS	1	70	40.641	39.264	15.469	1.00	0.00
ATOM	2196	3HZ	LYS	1	70	40.234	37.973	14.557	1.00	0.00
ATOM	2197	N	ILE	1	71	43.929	35.626	22.269	1.00	0.00
ATOM	2198	CA	ILE	1	71	45.257	35.047	22.119	1.00	0.00
ATOM	2199	C	ILE	1	71	45.258	34.062	20.953	1.00	0.00
ATOM	2200	O	ILE	1	71	46.208	33.939	20.181	1.00	0.00
ATOM	2201	CB	ILE	1	71	45.762	34.455	23.451	1.00	0.00
ATOM	2202	CG1	ILE	1	71	47.203	33.946	23.338	1.00	0.00
ATOM	2203	CG2	ILE	1	71	44.831	33.361	23.991	1.00	0.00
ATOM	2204	CD1	ILE	1	71	47.789	33.493	24.677	1.00	0.00
ATOM	2205	H	ILE	1	71	43.182	35.175	22.755	1.00	0.00
ATOM	2206	N	TRP	1	72	44.108	33.384	20.829	1.00	0.00
ATOM	2207	CA	TRP	1	72	43.848	32.812	19.516	1.00	0.00
ATOM	2208	C	TRP	1	72	42.642	33.491	18.896	1.00	0.00
ATOM	2209	O	TRP	1	72	42.777	34.298	17.976	1.00	0.00
ATOM	2210	CB	TRP	1	72	43.833	31.267	19.530	1.00	0.00
ATOM	2211	CG	TRP	1	72	42.984	30.636	20.619	1.00	0.00
ATOM	2212	CD1	TRP	1	72	43.310	30.473	21.973	1.00	0.00
ATOM	2213	CD2	TRP	1	72	41.685	30.027	20.471	1.00	0.00
ATOM	2214	NE1	TRP	1	72	42.322	29.222	22.653	1.00	0.00
ATOM	2215	CE2	TRP	1	72	41.300	29.527	21.759	1.00	0.00
ATOM	2216	CE3	TRP	1	72	40.826	39.859	19.364	1.00	0.00
ATOM	2217	CZ2	TRP	1	72	40.064	28.866	21.914	1.00	0.00
ATOM	2218	CZ3	TRP	1	72	39.593	29.196	19.533	1.00	0.00
ATOM	2219	CH2	TRP	1	72	39.216	28.701	20.800	1.00	0.00
ATOM	2220	H	TRP	1	72	43.394	33.444	21.537	1.00	0.00
ATOM	2221	HE1	TRP	1	72	42.321	29.552	23.607	1.00	0.00
ATOM	2222	N	ASN	1	73	41.499	33.209	19.528	1.00	0.00
ATOM	2223	CA	ASN	1	73	40.222	33.910	19.366	1.00	0.00
ATOM	2224	C	ASN	1	73	39.186	33.137	20.130	1.00	0.00
ATOM	2225	O	ASN	1	73	38.426	32.343	19.588	1.00	0.00
ATOM	2226	CB	ASN	1	73	39.741	34.167	17.923	1.00	0.00
ATOM	2227	CG	ASN	1	73	40.039	33.060	16.927	1.00	0.00
ATOM	2228	OD1	ASN	1	73	40.930	33.198	16.092	1.00	0.00
ATOM	2229	ND2	ASN	1	73	39.245	31.992	16.985	1.00	0.00

ATOM	2230	H	ASN	1	73	41.534	32.510	20.237	1.00	0.00
ATOM	2231	1HD2	ASN	1	73	39.388	31.186	16.408	1.00	0.00
ATOM	2232	2HD2	ASN	1	73	38.497	31.978	17.653	1.00	0.00
ATOM	2233	N	GLY	1	74	39.273	33.332	21.444	1.00	0.00
ATOM	2234	CA	GLY	1	74	38.442	32.542	22.335	1.00	0.00
ATOM	2235	C	GLY	1	74	39.062	32.366	23.705	1.00	0.00
ATOM	2236	O	GLY	1	74	39.390	32.343	24.727	1.00	0.00
ATOM	2237	H	GLY	1	74	38.825	34.087	21.794	1.00	0.00
ATOM	2238	N	MET	1	75	40.403	32.242	23.684	1.00	0.00
ATOM	2239	CA	MET	1	75	41.184	32.010	24.902	1.00	0.00
ATOM	2240	C	MET	1	75	40.800	30.739	25.649	1.00	0.00
ATOM	2241	O	MET	1	75	41.346	29.679	25.372	1.00	0.00
ATOM	2242	CB	MET	1	75	41.227	33.277	25.775	1.00	0.00
ATOM	2243	CG	MET	1	75	42.241	33.264	26.923	1.00	0.00
ATOM	2244	SD	MET	1	75	42.287	34.841	27.793	1.00	0.00
ATOM	2245	CE	MET	1	75	40.546	34.918	28.260	1.00	0.00
ATOM	2246	H	MET	1	75	40.859	32.359	22.805	1.00	0.00
ATOM	2247	N	VAL	1	76	39.855	30.896	26.580	1.00	0.00
ATOM	2248	CA	VAL	1	76	39.390	29.729	27.311	1.00	0.00
ATOM	2249	C	VAL	1	76	38.045	29.219	26.825	1.00	0.00
ATOM	2250	O	VAL	1	76	37.466	28.322	27.428	1.00	0.00
ATOM	2251	CB	VAL	1	76	39.357	30.020	28.818	1.00	0.00
ATOM	2252	CG1	VAL	1	76	40.774	30.221	29.360	1.00	0.00
ATOM	2253	CG2	VAL	1	76	38.439	31.200	29.161	1.00	0.00
ATOM	2254	H	VAL	1	76	39.329	31.746	26.631	1.00	0.00
ATOM	2255	N	GLY	1	77	37.580	29.824	25.734	1.00	0.00
ATOM	2256	CA	GLY	1	77	36.281	29.491	25.175	1.00	0.00
ATOM	2257	C	GLY	1	77	36.395	29.339	23.675	1.00	0.00
ATOM	2258	O	GLY	1	77	37.394	29.800	23.027	1.00	0.00
ATOM	2259	H	GLY	1	77	38.093	30.550	25.288	1.00	0.00
ATOM	2260	N	GLU	1	78	35.406	28.624	23.141	1.00	0.00
ATOM	2261	CA	GLU	1	78	35.566	28.205	21.756	1.00	0.00
ATOM	2262	C	GLU	1	78	35.307	29.293	20.747	1.00	0.00
ATOM	2263	O	GLU	1	78	34.448	30.159	20.896	1.00	0.00
ATOM	2264	CB	GLU	1	78	34.716	26.982	21.378	1.00	0.00
ATOM	2265	CG	GLU	1	78	34.756	25.791	22.342	1.00	0.00
ATOM	2266	CD	GLU	1	78	33.970	26.144	23.585	1.00	0.00
ATOM	2267	OE1	GLU	1	78	34.561	26.219	24.657	1.00	0.00
ATOM	2268	OE2	GLU	1	78	32.777	26.396	23.472	1.00	0.00
ATOM	2269	H	GLU	1	78	34.668	28.228	23.698	1.00	0.00
ATOM	2270	N	LEU	1	79	36.118	29.150	19.686	1.00	0.00
ATOM	2271	CA	LEU	1	79	35.981	29.844	18.401	1.00	0.00
ATOM	2272	C	LEU	1	79	35.178	31.129	18.369	1.00	0.00
ATOM	2273	O	LEU	1	79	34.211	31.299	17.632	1.00	0.00
ATOM	2274	CB	LEU	1	79	35.475	28.869	17.334	1.00	0.00
ATOM	2275	CG	LEU	1	79	36.444	27.717	17.057	1.00	0.00
ATOM	2276	CD1	LEU	1	79	35.802	20.639	16.184	1.00	0.00
ATOM	2277	CD2	LEU	1	79	37.769	28.211	16.470	1.00	0.00
ATOM	2278	H	LEU	1	79	36.350	28.484	19.804	1.00	0.00
ATOM	2279	N	VAL	1	80	35.630	32.072	19.204	1.00	0.00
ATOM	2280	CA	VAL	1	80	35.032	33.404	19.121	1.00	0.00
ATOM	2281	C	VAL	1	80	35.583	34.087	17.922	1.00	0.00
ATOM	2282	O	VAL	1	80	36.643	33.504	17.357	1.00	0.00
ATOM	2283	CB	VAL	1	80	35.259	34.151	20.460	1.00	0.00
ATOM	2284	CG1	VAL	1	80	34.492	35.471	20.594	1.00	0.00
ATOM	2285	CG2	VAL	1	80	34.882	33.259	21.644	1.00	0.00
ATOM	2286	H	VAL	1	80	36.450	31.889	19.750	1.00	0.00
ATOM	2287	N	TYR	1	81	35.180	35.266	17.529	1.00	0.00
ATOM	2288	CA	TYR	1	81	36.018	35.987	16.563	1.00	0.00
ATOM	2289	C	TYR	1	81	37.255	36.637	17.186	1.00	0.00
ATOM	2290	O	TYR	1	81	38.301	36.815	15.563	1.00	0.00
ATOM	2291	CB	TYR	1	81	35.197	37.016	15.768	1.00	0.00

ATOM	2292	CG	TYR	1	81	35.546	37.002	14.289	1.00	0.00
ATOM	2293	CD1	TYR	1	81	36.572	37.837	13.792	1.00	0.00
ATOM	2294	CD2	TYR	1	81	34.813	36.155	13.432	1.00	0.00
ATOM	2295	CE1	TYR	1	81	36.856	37.834	12.412	1.00	0.00
ATOM	2296	CE2	TYR	1	81	35.096	36.153	12.054	1.00	0.00
ATOM	2297	CZ	TYR	1	81	36.113	36.993	11.553	1.00	0.00
ATOM	2298	OH	TYR	1	81	36.389	36.981	10.191	1.00	0.00
ATOM	2299	H	TYR	1	81	34.409	35.628	18.053	1.00	0.00
ATOM	2300	HH	TYR	1	81	35.739	36.425	9.769	1.00	0.00
ATOM	2301	N	GLY	1	82	37.077	37.034	18.467	1.00	0.00
ATOM	2302	CA	GLY	1	82	38.061	37.767	19.272	1.00	0.00
ATOM	2303	C	GLY	1	82	38.578	39.052	18.644	1.00	0.00
ATOM	2304	O	GLY	1	82	38.626	39.162	17.425	1.00	0.00
ATOM	2305	H	GLY	1	82	36.267	36.675	18.928	1.00	0.00
ATOM	2306	N	ARG	1	83	39.015	39.989	19.504	1.00	0.00
ATOM	2307	CA	ARG	1	83	39.344	41.334	18.995	1.00	0.00
ATOM	2308	C	ARG	1	83	38.075	42.004	18.513	1.00	0.00
ATOM	2309	O	ARG	1	83	37.854	42.288	17.333	1.00	0.00
ATOM	2310	CB	ARG	1	83	40.424	41.330	17.888	1.00	0.00
ATOM	2311	CG	ARG	1	83	41.021	42.634	17.362	1.00	0.00
ATOM	2312	CD	ARG	1	83	42.250	43.053	18.153	1.00	0.00
ATOM	2313	NE	ARG	1	83	41.876	43.367	19.522	1.00	0.00
ATOM	2314	CZ	ARG	1	83	42.748	43.324	20.524	1.00	0.00
ATOM	2315	NH1	ARG	1	83	42.380	43.815	21.689	1.00	0.00
ATOM	2316	NH2	ARG	1	83	43.954	42.813	20.356	1.00	0.00
ATOM	2317	H	ARG	1	83	38.898	39.842	20.492	1.00	0.00
ATOM	2318	HE	ARG	1	83	40.980	43.792	19.690	1.00	0.00
ATOM	2319	1HH1	ARG	1	83	42.993	43.898	22.480	1.00	0.00
ATOM	2320	2HH1	ARG	1	83	41.438	44.163	21.786	1.00	0.00
ATOM	2321	1HH2	ARG	1	83	44.612	42.903	21.107	1.00	0.00
ATOM	2322	2HH2	ARG	1	83	44.209	42.358	19.502	1.00	0.00
ATOM	2323	N	ALA	1	84	37.229	42.210	19.526	1.00	0.00
ATOM	2324	CA	ALA	1	84	35.009	42.931	19.198	1.00	0.00
ATOM	2325	C	ALA	1	84	36.211	44.436	19.209	1.00	0.00
ATOM	2326	O	ALA	1	84	35.283	45.239	19.140	1.00	0.00
ATOM	2327	CB	ALA	1	84	34.895	42.546	20.166	1.00	0.00
ATOM	2328	H	ALA	1	84	37.555	42.163	20.470	1.00	0.00
ATOM	2329	N	ASP	1	85	37.474	44.801	19.350	1.00	0.00
ATOM	2330	CA	ASP	1	85	37.826	46.195	19.452	1.00	0.00
ATOM	2331	C	ASP	1	85	38.557	46.627	18.191	1.00	0.00
ATOM	2332	O	ASP	1	85	38.290	46.079	17.122	1.00	0.00
ATOM	2333	CB	ASP	1	85	38.573	46.417	20.762	1.00	0.00
ATOM	2334	CG	ASP	1	85	39.734	45.475	20.737	1.00	0.00
ATOM	2335	OD1	ASP	1	85	39.606	44.374	21.238	1.00	0.00
ATOM	2336	OD2	ASP	1	85	40.747	45.814	20.159	1.00	0.00
ATOM	2337	H	ASP	1	85	38.224	44.146	19.311	1.00	0.00
ATOM	2338	N	ILE	1	86	39.384	47.685	18.347	1.00	0.00
ATOM	2339	CA	ILE	1	86	39.157	48.916	17.575	1.00	0.00
ATOM	2340	C	ILE	1	86	37.773	49.537	17.774	1.00	0.00
ATOM	2341	O	ILE	1	86	37.162	50.185	16.906	1.00	0.00
ATOM	2342	CB	ILE	1	86	39.668	48.843	16.115	1.00	0.00
ATOM	2343	CG1	ILE	1	86	40.258	50.192	15.699	1.00	0.00
ATOM	2344	CG2	ILE	1	86	38.618	48.386	15.093	1.00	0.00
ATOM	2345	CD1	ILE	1	86	41.075	50.113	14.408	1.00	0.00
ATOM	2346	H	ILE	1	86	39.852	47.802	19.223	1.00	0.00
ATOM	2347	N	ALA	1	87	37.333	49.268	19.016	1.00	0.00
ATOM	2348	CA	ALA	1	87	36.039	49.687	19.501	1.00	0.00
ATOM	2349	C	ALA	1	87	36.043	51.170	19.531	1.00	0.00
ATOM	2350	O	ALA	1	87	36.694	51.799	20.360	1.00	0.00
ATOM	2351	CB	ALA	1	87	35.800	49.169	20.924	1.00	0.00
ATOM	2352	H	ALA	1	87	38.072	48.996	19.622	1.00	0.00
ATOM	2353	N	VAL	1	88	35.332	51.716	18.549	1.00	0.00

ATOM	2354	CA	VAL	1	88	34.934	53.110	18.743	1.00	0.00
ATOM	2355	C	VAL	1	88	33.694	53.094	19.551	1.00	0.00
ATOM	2356	O	VAL	1	88	33.071	52.037	19.653	1.00	0.00
ATOM	2357	CB	VAL	1	88	34.906	53.837	17.391	1.00	0.00
ATOM	2358	CG1	VAL	1	88	35.001	55.354	17.548	1.00	0.00
ATOM	2359	CG2	VAL	1	88	36.041	53.381	16.468	1.00	0.00
ATOM	2360	H	VAL	1	88	34.894	51.169	17.838	1.00	0.00
ATOM	2361	N	ALA	1	89	33.396	54.262	20.152	1.00	0.00
ATOM	2362	CA	ALA	1	89	32.414	54.462	21.229	1.00	0.00
ATOM	2363	C	ALA	1	89	33.088	54.623	22.566	1.00	0.00
ATOM	2364	O	ALA	1	89	33.818	53.770	23.065	1.00	0.00
ATOM	2365	CB	ALA	1	89	31.333	53.388	21.417	1.00	0.00
ATOM	2366	H	ALA	1	89	34.071	54.986	20.015	1.00	0.00
ATOM	2367	N	PRO	1	90	32.789	54.799	23.165	1.00	0.00
ATOM	2368	CA	PRO	1	90	33.416	56.268	24.407	1.00	0.00
ATOM	2369	C	PRO	1	90	33.771	55.286	25.517	1.00	0.00
ATOM	2370	O	PRO	1	90	33.118	55.203	26.561	1.00	0.00
ATOM	2371	CB	PRO	1	90	32.476	57.392	24.824	1.00	0.00
ATOM	2372	CG	PRO	1	90	32.057	58.008	23.503	1.00	0.00
ATOM	2373	CD	PRO	1	90	31.856	56.785	22.626	1.00	0.00
ATOM	2374	N	LEU	1	91	34.931	54.648	25.235	1.00	0.00
ATOM	2375	CA	LEU	1	91	35.832	53.949	26.155	1.00	0.00
ATOM	2376	C	LEU	1	91	36.278	54.857	27.292	1.00	0.00
ATOM	2377	O	LEU	1	91	35.641	55.877	27.533	1.00	0.00
ATOM	2378	CB	LEU	1	91	37.017	53.451	25.341	1.00	0.00
ATOM	2379	CG	LEU	1	91	37.509	52.090	25.793	1.00	0.00
ATOM	2380	CD1	LEU	1	91	36.708	50.958	25.148	1.00	0.00
ATOM	2381	CD2	LEU	1	91	39.017	51.976	25.618	1.00	0.00
ATOM	2382	H	LEU	1	91	35.213	54.609	24.276	1.00	0.00
ATOM	2383	N	THR	1	92	37.313	54.529	28.041	1.00	0.00
ATOM	2384	CA	THR	1	92	37.352	55.082	29.402	1.00	0.00
ATOM	2385	C	THR	1	92	38.730	55.454	29.921	1.00	0.00
ATOM	2386	O	THR	1	92	39.680	54.730	29.671	1.00	0.00
ATOM	2387	CB	THR	1	92	36.650	54.028	30.260	1.00	0.00
ATOM	2388	OG1	THR	1	92	35.272	53.988	29.860	1.00	0.00
ATOM	2389	CG2	THR	1	92	36.791	54.149	31.778	1.00	0.00
ATOM	2390	H	THR	1	92	37.999	53.026	27.759	1.00	0.00
ATOM	2391	HG1	THR	1	92	39.293	53.444	29.067	1.00	0.00
ATOM	2392	N	ILE	1	93	38.844	56.591	30.614	1.00	0.00
ATOM	2393	CA	ILE	1	93	40.191	56.965	31.058	1.00	0.00
ATOM	2394	C	ILE	1	93	40.562	56.426	32.438	1.00	0.00
ATOM	2395	O	ILE	1	93	39.905	56.718	33.443	1.00	0.00
ATOM	2396	CB	ILE	1	93	40.371	58.493	30.927	1.00	0.00
ATOM	2397	CG1	ILE	1	93	41.779	58.953	31.322	1.00	0.00
ATOM	2398	CG2	ILE	1	93	39.296	59.264	31.710	1.00	0.00
ATOM	2399	CD1	ILE	1	93	42.043	60.422	30.983	1.00	0.00
ATOM	2400	H	ILE	1	93	38.046	57.149	30.825	1.00	0.00
ATOM	2401	N	THR	1	94	41.616	55.597	32.440	1.00	0.00
ATOM	2402	CA	THR	1	94	42.106	54.953	33.663	1.00	0.00
ATOM	2403	C	THR	1	94	43.500	54.432	33.330	1.00	0.00
ATOM	2404	O	THR	1	94	43.699	54.111	32.173	1.00	0.00
ATOM	2405	CB	THR	1	94	41.166	53.787	34.037	1.00	0.00
ATOM	2406	OG1	THR	1	94	39.796	54.039	33.628	1.00	0.00
ATOM	2407	CG2	THR	1	94	41.227	53.511	35.540	1.00	0.00
ATOM	2408	H	THR	1	94	42.105	55.397	31.584	1.00	0.00
ATOM	2409	HG1	THR	1	94	39.608	54.908	33.985	1.00	0.00
ATOM	2410	N	LEU	1	95	44.445	54.327	34.292	1.00	0.00
ATOM	2411	CA	LEU	1	95	45.751	53.798	33.858	1.00	0.00
ATOM	2412	C	LEU	1	95	45.631	52.347	33.387	1.00	0.00
ATOM	2413	O	LEU	1	95	46.201	51.923	32.358	1.00	0.00
ATOM	2414	CB	LEU	1	95	46.795	53.976	34.964	1.00	0.00
ATOM	2415	CG	LEU	1	95	48.229	53.674	34.512	1.00	0.00

ATOM	2416	CD1	LEU	1	95	48.669	54.558	33.342	1.00	0.00
ATOM	2417	CD2	LEU	1	95	49.213	53.736	35.680	1.00	0.00
ATOM	2418	H	LEU	1	95	44.312	54.664	35.217	1.00	0.00
ATOM	2419	N	VAL	1	96	44.879	51.607	34.170	1.00	0.00
ATOM	2420	CA	VAL	1	96	44.444	50.292	33.679	1.00	0.00
ATOM	2421	C	VAL	1	96	43.497	50.291	32.471	1.00	0.00
ATOM	2422	O	VAL	1	96	42.812	49.325	32.139	1.00	0.00
ATOM	2423	CB	VAL	1	96	43.881	49.451	34.835	1.00	0.00
ATOM	2424	CG1	VAL	1	96	44.958	49.226	35.899	1.00	0.00
ATOM	2425	CG2	VAL	1	96	42.597	50.036	35.426	1.00	0.00
ATOM	2426	H	VAL	1	96	44.568	51.975	35.042	1.00	0.00
ATOM	2427	N	ARG	1	97	43.470	51.438	31.787	1.00	0.00
ATOM	2428	CA	ARG	1	97	42.784	51.396	30.512	1.00	0.00
ATOM	2429	C	ARG	1	97	43.678	51.257	29.324	1.00	0.00
ATOM	2430	O	ARG	1	97	43.400	50.425	28.473	1.00	0.00
ATOM	2431	CB	ARG	1	97	41.808	52.538	30.335	1.00	0.00
ATOM	2432	CG	ARG	1	97	40.455	52.056	30.825	1.00	0.00
ATOM	2433	CD	ARG	1	97	39.958	50.912	29.954	1.00	0.00
ATOM	2434	NE	ARG	1	97	38.651	50.485	30.421	1.00	0.00
ATOM	2435	CZ	ARG	1	97	37.694	50.168	29.535	1.00	0.00
ATOM	2436	NH1	ARG	1	97	36.459	50.024	29.991	1.00	0.00
ATOM	2437	NH2	ARG	1	97	37.962	50.048	28.242	1.00	0.00
ATOM	2438	H	ARG	1	97	44.066	52.223	31.934	1.00	0.00
ATOM	2439	HE	ARG	1	97	38.525	50.498	31.415	1.00	0.00
ATOM	2440	1HH1	ARG	1	97	35.707	49.766	29.382	1.00	0.00
ATOM	2441	2HH1	ARG	1	97	36.283	50.158	30.968	1.00	0.00
ATOM	2442	1HH2	ARG	1	97	37.251	49.995	27.535	1.00	0.00
ATOM	2443	2HH2	ARG	1	97	38.908	50.019	27.913	1.00	0.00
ATOM	2444	N	GLU	1	98	44.767	52.020	29.273	1.00	0.00
ATOM	2445	CA	GLU	1	98	45.745	51.584	28.282	1.00	0.00
ATOM	2446	C	GLU	1	98	46.451	50.311	28.713	1.00	0.00
ATOM	2447	O	GLU	1	98	46.514	49.295	28.025	1.00	0.00
ATOM	2448	CB	GLU	1	98	46.717	52.699	27.844	1.00	0.00
ATOM	2449	CG	GLU	1	98	47.244	53.642	28.883	1.00	0.00
ATOM	2450	CD	GLU	1	98	46.349	54.690	29.353	1.00	0.00
ATOM	2451	OE1	GLU	1	98	46.201	55.728	28.717	1.00	0.00
ATOM	2452	OE2	GLU	1	98	45.717	54.475	30.373	1.00	0.00
ATOM	2453	H	GLU	1	98	44.913	52.735	29.955	1.00	0.00
ATOM	2454	N	GLU	1	99	46.966	50.359	29.943	1.00	0.00
ATOM	2455	CA	GLU	1	99	47.643	49.136	30.361	1.00	0.00
ATOM	2456	C	GLU	1	99	46.782	48.071	31.020	1.00	0.00
ATOM	2457	O	GLU	1	99	47.232	47.192	31.744	1.00	0.00
ATOM	2458	CB	GLU	1	99	48.958	49.451	31.083	1.00	0.00
ATOM	2459	CG	GLU	1	99	50.078	48.456	30.744	1.00	0.00
ATOM	2460	CD	GLU	1	99	50.314	48.313	29.238	1.00	0.00
ATOM	2461	OE1	GLU	1	99	50.096	49.254	28.483	1.00	0.00
ATOM	2462	OE2	GLU	1	99	50.689	47.237	28.790	1.00	0.00
ATOM	2463	H	GLU	1	99	46.825	51.157	30.526	1.00	0.00
ATOM	2464	N	VAL	1	100	45.488	48.154	30.680	1.00	0.00
ATOM	2465	CA	VAL	1	100	44.782	46.895	30.458	1.00	0.00
ATOM	2466	C	VAL	1	100	44.096	46.924	29.098	1.00	0.00
ATOM	2467	O	VAL	1	100	44.514	46.268	28.149	1.00	0.00
ATOM	2468	CB	VAL	1	100	43.794	46.486	31.578	1.00	0.00
ATOM	2469	CG1	VAL	1	100	43.117	45.144	31.274	1.00	0.00
ATOM	2470	CG2	VAL	1	100	44.458	46.398	32.952	1.00	0.00
ATOM	2471	H	VAL	1	100	45.139	48.985	30.256	1.00	0.00
ATOM	2472	N	ILE	1	101	42.988	47.671	28.995	1.00	0.00
ATOM	2473	CA	ILE	1	101	42.246	47.533	27.731	1.00	0.00
ATOM	2474	C	ILE	1	101	42.178	48.764	26.820	1.00	0.00
ATOM	2475	O	ILE	1	101	41.223	49.557	26.863	1.00	0.00
ATOM	2476	CB	ILE	1	101	40.870	46.870	27.957	1.00	0.00
ATOM	2477	CG1	ILE	1	101	40.173	47.361	29.227	1.00	0.00

ATOM	2478	CG2	ILE	1	101	41.039	45.347	28.007	1.00	0.00
ATOM	2479	CD1	ILE	1	101	38.814	46.694	29.457	1.00	0.00
ATOM	2480	H	ILE	1	101	42.741	48.277	29.753	1.00	0.00
ATOM	2481	N	ASP	1	102	43.277	48.854	26.039	1.00	0.00
ATOM	2482	CA	ASP	1	102	43.843	50.034	25.377	1.00	0.00
ATOM	2483	C	ASP	1	102	42.955	51.086	24.775	1.00	0.00
ATOM	2484	O	ASP	1	102	41.750	50.949	24.580	1.00	0.00
ATOM	2485	CB	ASP	1	102	44.900	49.660	24.335	1.00	0.00
ATOM	2486	CG	ASP	1	102	46.164	49.173	24.991	1.00	0.00
ATOM	2487	OD1	ASP	1	102	47.123	49.928	25.101	1.00	0.00
ATOM	2488	OD2	ASP	1	102	46.203	48.023	25.393	1.00	0.00
ATOM	2489	H	ASP	1	102	43.948	48.129	26.173	1.00	0.00
ATOM	2490	N	PHE	1	103	43.635	52.203	24.510	1.00	0.00
ATOM	2491	CA	PHE	1	103	42.962	53.493	24.440	1.00	0.00
ATOM	2492	C	PHE	1	103	43.031	54.203	23.091	1.00	0.00
ATOM	2493	O	PHE	1	103	43.430	53.644	22.066	1.00	0.00
ATOM	2494	CB	PHE	1	103	43.525	54.345	25.596	1.00	0.00
ATOM	2495	CG	PHE	1	103	44.894	54.956	25.328	1.00	0.00
ATOM	2496	CD1	PHE	1	103	45.087	56.312	25.668	1.00	0.00
ATOM	2497	CD2	PHE	1	103	45.946	54.201	24.759	1.00	0.00
ATOM	2498	CE1	PHE	1	103	46.332	56.925	25.433	1.00	0.00
ATOM	2499	CE2	PHE	1	103	47.194	54.808	24.522	1.00	0.00
ATOM	2500	CZ	PHE	1	103	47.373	56.166	24.860	1.00	0.00
ATOM	2501	H	PHE	1	103	44.628	52.124	24.432	1.00	0.00
ATOM	2502	N	SER	1	104	42.693	55.502	23.179	1.00	0.00
ATOM	2503	CA	SER	1	104	43.287	56.497	22.295	1.00	0.00
ATOM	2504	C	SER	1	104	43.365	57.842	23.008	1.00	0.00
ATOM	2505	O	SER	1	104	42.884	57.980	24.137	1.00	0.00
ATOM	2506	CB	SER	1	104	42.547	56.594	20.965	1.00	0.00
ATOM	2507	OG	SER	1	104	43.418	57.227	20.009	1.00	0.00
ATOM	2508	H	SER	1	104	42.169	55.815	23.969	1.00	0.00
ATOM	2509	HG	SER	1	104	42.856	57.416	19.261	1.00	0.00
ATOM	2510	N	LYS	1	105	43.994	58.822	22.328	1.00	0.00
ATOM	2511	CA	LYS	1	105	44.148	60.159	22.922	1.00	0.00
ATOM	2512	C	LYS	1	105	42.768	60.754	23.191	1.00	0.00
ATOM	2513	O	LYS	1	105	41.861	60.440	22.423	1.00	0.00
ATOM	2514	CB	LYS	1	105	44.924	61.023	21.919	1.00	0.00
ATOM	2515	CG	LYS	1	105	45.936	62.004	22.515	1.00	0.00
ATOM	2516	CD	LYS	1	105	46.411	63.037	21.491	1.00	0.00
ATOM	2517	CE	LYS	1	105	47.473	63.983	22.056	1.00	0.00
ATOM	2518	NZ	LYS	1	105	47.542	65.179	21.212	1.00	0.00
ATOM	2519	H	LYS	1	105	44.243	58.605	21.381	1.00	0.00
ATOM	2520	1HZ	LYS	1	105	46.589	65.594	21.139	1.00	0.00
ATOM	2521	2HZ	LYS	1	105	48.070	65.944	21.667	1.00	0.00
ATOM	2522	3HZ	LYS	1	105	47.889	65.946	20.248	1.00	0.00
ATOM	2523	N	PRO	1	106	42.606	61.571	24.269	1.00	0.00
ATOM	2524	CA	PRO	1	106	41.329	62.259	24.543	1.00	0.00
ATOM	2525	C	PRO	1	106	40.570	62.908	23.380	1.00	0.00
ATOM	2526	O	PRO	1	106	40.587	64.118	23.125	1.00	0.00
ATOM	2527	CB	PRO	1	106	41.713	63.234	25.659	1.00	0.00
ATOM	2528	CG	PRO	1	106	42.821	62.511	26.421	1.00	0.00
ATOM	2529	CD	PRO	1	106	43.600	61.817	25.309	1.00	0.00
ATOM	2530	N	PHE	1	107	39.825	62.029	22.692	1.00	0.00
ATOM	2531	CA	PHE	1	107	39.071	62.548	21.560	1.00	0.00
ATOM	2532	C	PHE	1	107	37.603	62.778	21.831	1.00	0.00
ATOM	2533	O	PHE	1	107	36.963	63.606	21.188	1.00	0.00
ATOM	2534	CB	PHE	1	107	39.225	61.657	20.317	1.00	0.00
ATOM	2535	CG	PHE	1	107	40.638	61.658	19.771	1.00	0.00
ATOM	2536	CD1	PHE	1	107	41.312	62.879	19.533	1.00	0.00
ATOM	2537	CD2	PHE	1	107	41.258	60.421	19.485	1.00	0.00
ATOM	2538	CE1	PHE	1	107	42.617	62.861	19.004	1.00	0.00
ATOM	2539	CE2	PHE	1	107	42.563	60.400	18.956	1.00	0.00

ATOM	2540	CZ	PHE	1	107	43.228	61.622	18.718	1.00	0.00
ATOM	2541	H	PHE	1	107	39.946	61.055	22.910	1.00	0.00
ATOM	2542	N	MET	1	108	37.060	61.980	22.765	1.00	0.00
ATOM	2543	CA	MET	1	108	35.601	62.083	22.856	1.00	0.00
ATOM	2544	C	MET	1	108	34.980	63.079	23.816	1.00	0.00
ATOM	2545	O	MET	1	108	34.000	63.764	23.506	1.00	0.00
ATOM	2546	CB	MET	1	108	34.945	60.714	22.942	1.00	0.00
ATOM	2547	CG	MET	1	108	34.020	60.522	21.737	1.00	0.00
ATOM	2548	SD	MET	1	108	34.885	60.418	20.156	1.00	0.00
ATOM	2549	CE	MET	1	108	34.587	62.089	19.552	1.00	0.00
ATOM	2550	H	MET	1	108	37.613	61.351	23.313	1.00	0.00
ATOM	2551	N	SER	1	109	35.622	63.173	24.991	1.00	0.00
ATOM	2552	CA	SER	1	109	35.476	64.400	25.779	1.00	0.00
ATOM	2553	C	SER	1	109	34.039	64.723	26.216	1.00	0.00
ATOM	2554	O	SER	1	109	33.155	63.872	26.105	1.00	0.00
ATOM	2555	CB	SER	1	109	36.200	65.531	25.027	1.00	0.00
ATOM	2556	OG	SER	1	109	37.214	64.984	24.141	1.00	0.00
ATOM	2557	H	SER	1	109	36.293	62.475	25.227	1.00	0.00
ATOM	2558	HG	SER	1	109	37.580	65.723	23.638	1.00	0.00
ATOM	2559	N	LEU	1	110	33.848	65.963	26.761	1.00	0.00
ATOM	2560	CA	LEU	1	110	32.599	66.482	27.373	1.00	0.00
ATOM	2561	C	LEU	1	110	32.394	65.945	28.789	1.00	0.00
ATOM	2562	O	LEU	1	110	32.668	64.769	29.047	1.00	0.00
ATOM	2563	CB	LEU	1	110	31.372	66.294	26.452	1.00	0.00
ATOM	2564	CG	LEU	1	110	30.204	67.286	26.600	1.00	0.00
ATOM	2565	CD1	LEU	1	110	29.270	66.978	27.772	1.00	0.00
ATOM	2566	CD2	LEU	1	110	30.679	68.740	26.609	1.00	0.00
ATOM	2567	H	LEU	1	110	34.667	66.532	26.874	1.00	0.00
ATOM	2568	N	GLY	1	111	32.002	66.827	29.726	1.00	0.00
ATOM	2569	CA	GLY	1	111	32.226	66.455	31.133	1.00	0.00
ATOM	2570	C	GLY	1	111	30.992	66.172	31.976	1.00	0.00
ATOM	2571	O	GLY	1	111	29.881	66.610	31.642	1.00	0.00
ATOM	2572	H	GLY	1	111	31.732	67.749	29.447	1.00	0.00
ATOM	2573	N	ILE	1	112	31.236	65.419	33.071	1.00	0.00
ATOM	2574	CA	ILE	1	112	30.184	65.069	34.029	1.00	0.00
ATOM	2575	C	ILE	1	112	29.338	66.275	34.398	1.00	0.00
ATOM	2576	O	ILE	1	112	29.773	67.281	34.962	1.00	0.00
ATOM	2577	CB	ILE	1	112	30.756	64.341	35.262	1.00	0.00
ATOM	2578	CG1	ILE	1	112	29.071	63.816	36.202	1.00	0.00
ATOM	2579	CG2	ILE	1	112	31.706	65.229	36.057	1.00	0.00
ATOM	2580	CD1	ILE	1	112	28.862	62.664	35.619	1.00	0.00
ATOM	2581	H	ILE	1	112	32.204	65.258	33.247	1.00	0.00
ATOM	2582	N	SER	1	113	28.105	66.162	33.901	1.00	0.00
ATOM	2583	CA	SER	1	113	27.215	67.317	33.849	1.00	0.00
ATOM	2584	C	SER	1	113	26.551	67.591	35.194	1.00	0.00
ATOM	2585	O	SER	1	113	25.470	67.108	35.552	1.00	0.00
ATOM	2586	CB	SER	1	113	26.254	67.138	32.663	1.00	0.00
ATOM	2587	OG	SER	1	113	26.985	66.790	31.454	1.00	0.00
ATOM	2588	H	SER	1	113	27.810	65.269	33.565	1.00	0.00
ATOM	2589	HG	SER	1	113	26.644	67.436	30.833	1.00	0.00
ATOM	2590	N	ILE	1	114	27.351	68.334	35.973	1.00	0.00
ATOM	2591	CA	ILE	1	114	27.115	68.453	37.404	1.00	0.00
ATOM	2592	C	ILE	1	114	25.996	69.422	37.707	1.00	0.00
ATOM	2593	O	ILE	1	114	26.044	70.593	37.326	1.00	0.00
ATOM	2594	CB	ILE	1	114	28.425	68.844	38.134	1.00	0.00
ATOM	2595	CG1	ILE	1	114	29.492	67.765	37.953	1.00	0.00
ATOM	2596	CG2	ILE	1	114	28.229	69.048	39.688	1.00	0.00
ATOM	2597	CD1	ILE	1	114	30.785	68.023	38.733	1.00	0.00
ATOM	2598	H	ILE	1	114	28.170	68.718	35.545	1.00	0.00
ATOM	2599	N	MET	1	115	25.041	68.859	38.470	1.00	0.00
ATOM	2600	CA	MET	1	115	23.955	69.635	39.063	1.00	0.00
ATOM	2601	C	MET	1	115	22.349	69.972	38.081	1.00	0.00

ATOM	2602	O	MET	1	115	22.597	71.113	37.700	1.00	0.00
ATOM	2603	CB	MET	1	115	24.448	70.834	39.814	1.00	0.00
ATOM	2604	CG	MET	1	115	25.420	70.678	40.974	1.00	0.00
ATOM	2605	SD	MET	1	115	24.768	69.687	42.319	1.00	0.00
ATOM	2606	CE	MET	1	115	26.365	69.226	43.009	1.00	0.00
ATOM	2607	H	MET	1	115	25.011	67.859	38.522	1.00	0.00
ATOM	2608	N	ILE	1	116	22.144	68.885	37.687	1.00	0.00
ATOM	2609	CA	ILE	1	116	20.943	69.162	36.883	1.00	0.00
ATOM	2610	C	ILE	1	116	19.697	69.284	37.748	1.00	0.00
ATOM	2611	O	ILE	1	116	19.548	68.524	38.693	1.00	0.00
ATOM	2612	CB	ILE	1	116	20.782	68.225	35.672	1.00	0.00
ATOM	2613	CG1	ILE	1	116	20.144	66.865	35.951	1.00	0.00
ATOM	2614	CG2	ILE	1	116	22.148	68.077	34.994	1.00	0.00
ATOM	2615	CD1	ILE	1	116	18.641	66.824	35.656	1.00	0.00
ATOM	2616	H	ILE	1	116	22.388	67.980	38.046	1.00	0.00
ATOM	2617	N	LYS	1	117	18.928	70.359	37.504	1.00	0.00
ATOM	2618	CA	LYS	1	117	18.521	71.127	38.682	1.00	0.00
ATOM	2619	C	LYS	1	117	17.533	72.242	38.336	1.00	0.00
ATOM	2620	O	LYS	1	117	16.677	72.088	37.461	1.00	0.00
ATOM	2621	CB	LYS	1	117	19.805	71.583	39.386	1.00	0.00
ATOM	2622	CG	LYS	1	117	19.875	71.983	40.857	1.00	0.00
ATOM	2623	CD	LYS	1	117	21.337	72.179	41.275	1.00	0.00
ATOM	2624	CE	LYS	1	117	22.134	73.324	40.614	1.00	0.00
ATOM	2625	NZ	LYS	1	117	22.274	73.193	39.160	1.00	0.00
ATOM	2626	H	LYS	1	117	18.953	70.808	36.613	1.00	0.00
ATOM	2627	1HZ	LYS	1	117	21.344	73.357	38.726	1.00	0.00
ATOM	2628	2HZ	LYS	1	117	22.961	73.828	38.721	1.00	0.00
ATOM	2629	3HZ	LYS	1	117	22.537	72.236	38.889	1.00	0.00
ATOM	2630	N	LYS	1	118	17.589	73.353	39.093	1.00	0.00
ATOM	2631	CA	LYS	1	118	16.634	74.456	38.972	1.00	0.00
ATOM	2632	C	LYS	1	118	17.295	75.828	39.070	1.00	0.00
ATOM	2633	O	LYS	1	118	17.653	76.355	40.130	1.00	0.00
ATOM	2634	CB	LYS	1	118	15.495	74.326	39.992	1.00	0.00
ATOM	2635	CG	LYS	1	118	14.499	73.228	39.610	1.00	0.00
ATOM	2636	CD	LYS	1	118	13.760	73.556	38.307	1.00	0.00
ATOM	2637	CE	LYS	1	118	13.209	72.322	37.589	1.00	0.00
ATOM	2638	NZ	LYS	1	118	14.309	71.565	36.995	1.00	0.00
ATOM	2639	H	LYS	1	118	18.395	73.585	39.636	1.00	0.00
ATOM	2640	1HZ	LYS	1	118	15.020	71.355	37.723	1.00	0.00
ATOM	2641	2HZ	LYS	1	118	13.947	70.703	36.560	1.00	0.00
ATOM	2642	3HZ	LYS	1	118	14.819	72.120	36.286	1.00	0.00
ATOM	2643	N	PRO	1	119	17.416	76.435	37.865	1.00	0.00
ATOM	2644	CA	PRO	1	119	18.069	77.745	37.769	1.00	0.00
ATOM	2645	C	PRO	1	119	17.178	78.836	38.354	1.00	0.00
ATOM	2646	O	PRO	1	119	16.284	78.580	39.163	1.00	0.00
ATOM	2647	CB	PRO	1	119	18.298	77.861	36.254	1.00	0.00
ATOM	2648	CG	PRO	1	119	17.134	77.105	35.619	1.00	0.00
ATOM	2649	CD	PRO	1	119	16.961	75.931	36.571	1.00	0.00
ATOM	2650	N	GLY	1	120	17.432	80.054	37.882	1.00	0.00
ATOM	2651	CA	GLY	1	120	16.488	81.150	38.077	1.00	0.00
ATOM	2652	C	GLY	1	120	16.735	82.074	36.911	1.00	0.00
ATOM	2653	O	GLY	1	120	17.735	81.888	36.224	1.00	0.00
ATOM	2654	H	GLY	1	120	18.259	80.180	37.332	1.00	0.00
ATOM	2655	N	LYS	1	121	15.845	83.051	36.675	1.00	0.00
ATOM	2656	CA	LYS	1	121	16.255	84.015	35.645	1.00	0.00
ATOM	2657	C	LYS	1	121	17.029	85.195	36.208	1.00	0.00
ATOM	2658	O	LYS	1	121	16.769	86.365	35.935	1.00	0.00
ATOM	2659	CB	LYS	1	121	15.091	84.462	34.747	1.00	0.00
ATOM	2660	CG	LYS	1	121	14.642	82.367	33.771	1.00	0.00
ATOM	2661	CD	LYS	1	121	13.800	83.891	32.598	1.00	0.00
ATOM	2662	CE	LYS	1	121	13.424	82.780	31.608	1.00	0.00
ATOM	2663	NZ	LYS	1	121	12.838	83.335	30.376	1.00	0.00

ATOM	2664	H	LYS	1	121	15.050	83.256	37.247	1.00	0.00
ATOM	2665	1HZ	LYS	1	121	13.498	84.009	29.945	1.00	0.00
ATOM	2666	2HZ	LYS	1	121	12.672	82.574	29.690	1.00	0.00
ATOM	2667	3HZ	LYS	1	121	11.937	83.806	30.577	1.00	0.00
ATOM	2668	N	SER	1	122	18.006	84.796	37.037	1.00	0.00
ATOM	2669	CA	SER	1	122	18.929	85.779	37.576	1.00	0.00
ATOM	2670	C	SER	1	122	20.170	85.797	36.716	1.00	0.00
ATOM	2671	O	SER	1	122	20.911	84.822	36.614	1.00	0.00
ATOM	2672	CB	SER	1	122	19.240	85.459	39.038	1.00	0.00
ATOM	2673	OG	SER	1	122	18.913	84.087	39.351	1.00	0.00
ATOM	2674	H	SER	1	122	18.239	83.835	37.160	1.00	0.00
ATOM	2675	HG	SER	1	122	19.094	84.033	40.291	1.00	0.00
ATOM	2676	N	LYS	1	123	20.305	86.945	36.029	1.00	0.00
ATOM	2677	CA	LYS	1	123	21.359	87.150	35.030	1.00	0.00
ATOM	2678	C	LYS	1	123	21.498	86.028	33.997	1.00	0.00
ATOM	2679	O	LYS	1	123	22.276	85.091	34.134	1.00	0.00
ATOM	2680	CB	LYS	1	123	22.687	87.523	35.721	1.00	0.00
ATOM	2681	CG	LYS	1	123	23.643	88.378	34.873	1.00	0.00
ATOM	2682	CD	LYS	1	123	24.364	87.593	33.778	1.00	0.00
ATOM	2683	CE	LYS	1	123	24.968	88.459	32.677	1.00	0.00
ATOM	2684	NZ	LYS	1	123	25.421	87.588	31.593	1.00	0.00
ATOM	2685	H	LYS	1	123	19.616	87.646	36.209	1.00	0.00
ATOM	2686	1HZ	LYS	1	123	24.815	86.746	31.488	1.00	0.00
ATOM	2687	2HZ	LYS	1	123	25.454	88.106	30.692	1.00	0.00
ATOM	2688	3HZ	LYS	1	123	26.400	87.278	31.732	1.00	0.00
ATOM	2689	N	PRO	1	124	20.686	86.146	32.924	1.00	0.00
ATOM	2690	CA	PRO	1	124	20.755	85.140	31.858	1.00	0.00
ATOM	2691	C	PRO	1	124	22.033	85.301	31.025	1.00	0.00
ATOM	2692	O	PRO	1	124	22.806	86.237	31.204	1.00	0.00
ATOM	2693	CB	PRO	1	124	19.478	85.422	31.076	1.00	0.00
ATOM	2694	CG	PRO	1	124	19.244	86.925	31.236	1.00	0.00
ATOM	2695	CD	PRO	1	124	19.697	87.188	32.667	1.00	0.00
ATOM	2696	N	GLY	1	125	22.187	84.360	30.074	1.00	0.00
ATOM	2697	CA	GLY	1	125	23.347	84.355	29.175	1.00	0.00
ATOM	2698	C	GLY	1	125	23.793	85.683	28.574	1.00	0.00
ATOM	2699	O	GLY	1	125	23.049	86.832	27.048	1.00	0.00
ATOM	2700	H	GLY	1	125	21.554	83.583	30.097	1.00	0.00
ATOM	2701	N	GLY	1	126	25.051	86.015	28.895	1.00	0.00
ATOM	2702	CA	GLY	1	126	25.720	87.148	28.266	1.00	0.00
ATOM	2703	C	GLY	1	126	26.936	87.561	29.083	1.00	0.00
ATOM	2704	1OCT	GLY	1	126	26.894	88.596	29.734	1.00	0.00
ATOM	2705	2OCT	GLY	1	126	27.923	86.836	29.109	1.00	0.00
ATOM	2706	H	GLY	1	126	25.528	85.446	29.564	1.00	0.00
END										

TABLE 4

REMARK	1	Ka Receptor (GluR6)	Model of the glutamate binding site					
ATOM	1	N SER 1 427	47.092	43.380	10.501	1.00	0.00	
ATOM	2	CA SER 1 427	47.313	44.694	11.108	1.00	0.00	
ATOM	3	C SER 1 427	45.964	45.140	11.604	1.00	0.00	
ATOM	4	O SER 1 427	45.123	44.290	11.885	1.00	0.00	
ATOM	5	CB SER 1 427	47.842	45.643	10.037	1.00	0.00	
ATOM	6	OG SER 1 427	48.684	44.947	9.101	1.00	0.00	
ATOM	7	1HT SER 1 427	46.213	43.433	9.943	1.00	0.00	
ATOM	8	2HT SER 1 427	47.904	43.154	9.893	1.00	0.00	
ATOM	9	3HT SER 1 427	46.929	42.671	11.242	1.00	0.00	
ATOM	10	HG SER 1 427	49.148	45.651	8.645	1.00	0.00	
ATOM	11	N LEU 1 428	45.730	46.468	11.567	1.00	0.00	
ATOM	12	CA LEU 1 428	44.377	46.910	11.212	1.00	0.00	
ATOM	13	C LEU 1 428	43.950	46.209	9.927	1.00	0.00	
ATOM	14	O LEU 1 428	44.508	46.464	8.856	1.00	0.00	
ATOM	15	CB LEU 1 428	44.392	48.424	11.000	1.00	0.00	
ATOM	16	CG LEU 1 428	43.000	49.039	10.883	1.00	0.00	
ATOM	17	CD1 LEU 1 428	42.321	49.089	12.246	1.00	0.00	
ATOM	18	CD2 LEU 1 428	43.023	50.409	10.208	1.00	0.00	
ATOM	19	H LEU 1 428	46.469	47.135	11.668	1.00	0.00	
ATOM	20	N SER 1 429	43.051	45.242	10.080	1.00	0.00	
ATOM	21	CA SER 1 429	42.860	44.429	8.892	1.00	0.00	
ATOM	22	C SER 1 429	41.538	44.706	8.197	1.00	0.00	
ATOM	23	O SER 1 429	40.916	45.753	8.386	1.00	0.00	
ATOM	24	CB SER 1 429	43.170	42.962	9.222	1.00	0.00	
ATOM	25	OG SER 1 429	44.547	42.831	9.655	1.00	0.00	
ATOM	26	H SER 1 429	42.584	45.049	10.943	1.00	0.00	
ATOM	27	HG SER 1 429	44.427	42.991	10.602	1.00	0.00	
ATOM	28	N ASN 1 430	41.125	43.779	7.312	1.00	0.00	
ATOM	29	CA ASN 1 430	39.849	44.095	6.658	1.00	0.00	
ATOM	30	C ASN 1 430	38.637	44.024	7.583	1.00	0.00	
ATOM	31	O ASN 1 430	37.638	44.732	7.414	1.00	0.00	
ATOM	32	CB ASN 1 430	39.640	43.257	5.395	1.00	0.00	
ATOM	33	CG ASN 1 430	38.943	44.073	4.312	1.00	0.00	
ATOM	34	OD1 ASN 1 430	39.439	44.214	3.200	1.00	0.00	
ATOM	35	ND2 ASN 1 430	37.747	44.566	4.651	1.00	0.00	
ATOM	36	H ASN 1 430	41.572	42.897	7.187	1.00	0.00	
ATOM	37	1HD2 ASN 1 430	37.265	45.082	3.942	1.00	0.00	
ATOM	38	2HD2 ASN 1 430	37.327	44.425	5.543	1.00	0.00	
ATOM	39	N ARG 1 431	38.797	43.145	8.581	1.00	0.00	
ATOM	40	CA ARG 1 431	37.936	43.225	9.753	1.00	0.00	
ATOM	41	C ARG 1 431	38.722	43.986	10.797	1.00	0.00	
ATOM	42	O ARG 1 431	39.945	43.851	10.860	1.00	0.00	
ATOM	43	CB ARG 1 431	37.594	41.811	10.228	1.00	0.00	
ATOM	44	CG ARG 1 431	37.175	40.866	9.091	1.00	0.00	
ATOM	45	CD ARG 1 431	35.754	41.036	8.536	1.00	0.00	
ATOM	46	NE ARG 1 431	35.460	42.390	8.059	1.00	0.00	
ATOM	47	CZ ARG 1 431	34.254	42.935	8.318	1.00	0.00	
ATOM	48	NH1 ARG 1 431	33.935	44.114	7.798	1.00	0.00	
ATOM	49	NH2 ARG 1 431	33.382	42.298	9.083	1.00	0.00	
ATOM	50	H ARG 1 431	39.688	42.724	8.724	1.00	0.00	
ATOM	51	HE ARG 1 431	36.122	42.928	7.537	1.00	0.00	
ATOM	52	1HH1 ARG 1 431	33.070	44.551	8.075	1.00	0.00	
ATOM	53	2HH1 ARG 1 431	34.494	44.604	7.142	1.00	0.00	
ATOM	54	1HH2 ARG 1 431	32.490	42.730	9.233	1.00	0.00	
ATOM	55	2HH2 ARG 1 431	33.596	41.411	9.489	1.00	0.00	
ATOM	56	N SER 1 432	37.995	44.833	11.548	1.00	0.00	
ATOM	57	CA SER 1 432	38.563	45.819	12.483	1.00	0.00	
ATOM	58	C SER 1 432	37.449	46.706	13.009	1.00	0.00	
ATOM	59	O SER 1 432	37.086	47.703	12.386	1.00	0.00	
ATOM	60	CB SER 1 432	39.626	46.690	11.808	1.00	0.00	
ATOM	61	OG SER 1 432	39.308	46.857	10.411	1.00	0.00	
ATOM	62	H SER 1 432	36.999	44.754	11.478	1.00	0.00	
ATOM	63	HG SER 1 432	39.842	46.205	9.949	1.00	0.00	
ATOM	64	N LEU 1 433	36.848	46.204	14.083	1.00	0.00	

ATOM	65	CA	LEU	1	433	35.475	46.479	14.507	1.00	0.00
ATOM	66	C	LEU	1	433	35.300	47.726	15.388	1.00	0.00
ATOM	67	O	LEU	1	433	36.128	48.636	15.437	1.00	0.00
ATOM	68	CB	LEU	1	433	34.979	45.242	15.281	1.00	0.00
ATOM	69	CG	LEU	1	433	34.645	43.890	14.636	1.00	0.00
ATOM	70	CD1	LEU	1	433	35.669	43.315	13.655	1.00	0.00
ATOM	71	CD2	LEU	1	433	34.369	42.885	15.756	1.00	0.00
ATOM	72	H	LEU	1	433	37.387	45.506	14.551	1.00	0.00
ATOM	73	N	ILE	1	434	34.200	47.654	16.179	1.00	0.00
ATOM	74	CA	ILE	1	434	33.966	48.378	17.434	1.00	0.00
ATOM	75	C	ILE	1	434	32.965	47.592	18.279	1.00	0.00
ATOM	76	O	ILE	1	434	31.998	47.052	17.751	1.00	0.00
ATOM	77	CB	ILE	1	434	33.468	49.813	17.148	1.00	0.00
ATOM	78	CG1	ILE	1	434	32.932	50.606	18.345	1.00	0.00
ATOM	79	CG2	ILE	1	434	32.402	49.786	16.081	1.00	0.00
ATOM	80	CD1	ILE	1	434	32.194	51.873	17.901	1.00	0.00
ATOM	81	H	ILE	1	434	33.481	46.999	15.954	1.00	0.00
ATOM	82	N	VAL	1	435	33.208	47.608	19.594	1.00	0.00
ATOM	83	CA	VAL	1	435	32.100	47.249	20.477	1.00	0.00
ATOM	84	C	VAL	1	435	31.412	48.471	21.067	1.00	0.00
ATOM	85	O	VAL	1	435	32.065	49.397	21.577	1.00	0.00
ATOM	86	CB	VAL	1	435	32.553	46.274	21.579	1.00	0.00
ATOM	87	CG1	VAL	1	435	32.893	44.913	20.976	1.00	0.00
ATOM	88	CG2	VAL	1	435	33.712	46.812	22.427	1.00	0.00
ATOM	89	H	VAL	1	435	34.125	47.841	19.922	1.00	0.00
ATOM	90	N	THR	1	436	30.076	48.467	20.979	1.00	0.00
ATOM	91	CA	THR	1	436	29.280	49.491	21.657	1.00	0.00
ATOM	92	C	THR	1	436	27.861	49.028	21.912	1.00	0.00
ATOM	93	O	THR	1	436	27.220	48.384	21.080	1.00	0.00
ATOM	94	CB	THR	1	436	29.304	50.824	20.890	1.00	0.00
ATOM	95	OG1	THR	1	436	28.953	51.933	21.749	1.00	0.00
ATOM	96	CG2	THR	1	436	28.503	50.829	19.584	1.00	0.00
ATOM	97	H	THR	1	436	29.645	47.865	20.309	1.00	0.00
ATOM	98	HG1	THR	1	436	28.012	51.865	21.923	1.00	0.00
ATOM	99	N	THR	1	437	27.397	49.365	23.113	1.00	0.00
ATOM	100	CA	THR	1	437	26.169	48.695	23.506	1.00	0.00
ATOM	101	C	THR	1	437	24.902	49.277	22.916	1.00	0.00
ATOM	102	O	THR	1	437	24.569	50.445	23.116	1.00	0.00
ATOM	103	CB	THR	1	437	26.061	48.651	25.022	1.00	0.00
ATOM	104	OG1	THR	1	437	27.343	48.873	25.650	1.00	0.00
ATOM	105	CG2	THR	1	437	25.354	47.371	25.472	1.00	0.00
ATOM	106	H	THR	1	437	27.906	49.970	23.724	1.00	0.00
ATOM	107	HG1	THR	1	437	27.458	49.821	25.588	1.00	0.00
ATOM	108	N	ILE	1	438	24.164	48.387	22.228	1.00	0.00
ATOM	109	CA	ILE	1	438	22.799	48.710	21.782	1.00	0.00
ATOM	110	C	ILE	1	438	21.877	49.189	22.906	1.00	0.00
ATOM	111	O	ILE	1	438	21.039	50.075	22.742	1.00	0.00
ATOM	112	CB	ILE	1	438	22.188	47.517	21.018	1.00	0.00
ATOM	113	CG1	ILE	1	438	20.726	47.752	20.614	1.00	0.00
ATOM	114	CG2	ILE	1	438	22.299	46.215	21.825	1.00	0.00
ATOM	115	CD1	ILE	1	438	20.528	48.811	19.532	1.00	0.00
ATOM	116	H	ILE	1	438	24.544	47.463	22.204	1.00	0.00
ATOM	117	N	LEU	1	439	22.123	48.579	24.080	1.00	0.00
ATOM	118	CA	LEU	1	439	21.353	49.012	25.236	1.00	0.00
ATOM	119	C	LEU	1	439	21.746	50.402	25.702	1.00	0.00
ATOM	120	O	LEU	1	439	20.925	51.199	26.151	1.00	0.00
ATOM	121	CB	LEU	1	439	21.499	47.982	26.361	1.00	0.00
ATOM	122	CG	LEU	1	439	20.608	48.222	27.585	1.00	0.00
ATOM	123	CD1	LEU	1	439	19.117	48.142	27.249	1.00	0.00
ATOM	124	CD2	LEU	1	439	20.981	47.291	28.739	1.00	0.00
ATOM	125	H	LEU	1	439	22.909	47.975	24.181	1.00	0.00
ATOM	126	N	GLU	1	440	23.049	50.678	25.615	1.00	0.00
ATOM	127	CA	GLU	1	440	23.420	51.995	26.127	1.00	0.00
ATOM	128	C	GLU	1	440	23.181	53.116	25.136	1.00	0.00
ATOM	129	O	GLU	1	440	23.105	52.904	23.920	1.00	0.00
ATOM	130	CB	GLU	1	440	24.872	52.018	26.609	1.00	0.00
ATOM	131	CG	GLU	1	440	25.882	52.122	25.458	1.00	0.00

ATOM	132	CD	GLU	1	440	27.302	52.026	25.950	1.00	0.00
ATOM	133	OE1	GLU	1	440	27.548	51.383	26.951	1.00	0.00
ATOM	134	OE2	GLU	1	440	28.187	52.576	25.323	1.00	0.00
ATOM	135	H	GLU	1	440	23.690	50.027	25.219	1.00	0.00
ATOM	136	N	GLU	1	441	23.147	54.311	25.721	1.00	0.00
ATOM	137	CA	GLU	1	441	23.125	55.552	24.951	1.00	0.00
ATOM	138	C	GLU	1	441	24.540	55.907	24.428	1.00	0.00
ATOM	139	O	GLU	1	441	25.321	54.975	24.200	1.00	0.00
ATOM	140	CB	GLU	1	441	22.391	56.554	25.864	1.00	0.00
ATOM	141	CG	GLU	1	441	20.977	56.094	26.255	1.00	0.00
ATOM	142	CD	GLU	1	441	20.153	55.780	25.018	1.00	0.00
ATOM	143	OE1	GLU	1	441	19.756	56.694	24.311	1.00	0.00
ATOM	144	OE2	GLU	1	441	19.899	54.613	24.740	1.00	0.00
ATOM	145	H	GLU	1	441	23.176	54.353	26.718	1.00	0.00
ATOM	146	N	PRO	1	442	24.892	57.209	24.202	1.00	0.00
ATOM	147	CA	PRO	1	442	24.013	58.315	23.765	1.00	0.00
ATOM	148	C	PRO	1	442	23.258	58.135	22.446	1.00	0.00
ATOM	149	O	PRO	1	442	22.629	59.051	21.904	1.00	0.00
ATOM	150	CB	PRO	1	442	24.957	59.521	23.748	1.00	0.00
ATOM	151	CG	PRO	1	442	26.375	58.989	23.673	1.00	0.00
ATOM	152	CD	PRO	1	442	26.284	57.619	24.322	1.00	0.00
ATOM	153	N	TYR	1	443	23.320	56.904	21.920	1.00	0.00
ATOM	154	CA	TYR	1	443	22.768	56.662	20.599	1.00	0.00
ATOM	155	C	TYR	1	443	21.309	56.203	20.615	1.00	0.00
ATOM	156	O	TYR	1	443	20.947	55.060	20.353	1.00	0.00
ATOM	157	CB	TYR	1	443	23.784	55.791	19.828	1.00	0.00
ATOM	158	CG	TYR	1	443	25.192	56.289	20.146	1.00	0.00
ATOM	159	CD1	TYR	1	443	25.596	57.572	19.711	1.00	0.00
ATOM	160	CD2	TYR	1	443	26.050	55.482	20.928	1.00	0.00
ATOM	161	CE1	TYR	1	443	26.811	58.107	20.178	1.00	0.00
ATOM	162	CE2	TYR	1	443	27.277	56.010	21.378	1.00	0.00
ATOM	163	CZ	TYR	1	443	27.610	57.344	21.057	1.00	0.00
ATOM	164	OH	TYR	1	443	28.705	57.952	21.661	1.00	0.00
ATOM	165	H	TYR	1	443	23.912	56.247	22.377	1.00	0.00
ATOM	166	HH	TYR	1	443	29.423	57.312	21.617	1.00	0.00
ATOM	167	N	VAL	1	444	20.500	57.225	20.940	1.00	0.00
ATOM	168	CA	VAL	1	444	19.027	57.190	20.917	1.00	0.00
ATOM	169	C	VAL	1	444	18.253	55.867	21.029	1.00	0.00
ATOM	170	O	VAL	1	444	17.637	55.359	20.079	1.00	0.00
ATOM	171	CB	VAL	1	444	18.488	58.050	19.754	1.00	0.00
ATOM	172	CG1	VAL	1	444	17.028	58.457	19.988	1.00	0.00
ATOM	173	CG2	VAL	1	444	19.350	59.294	19.511	1.00	0.00
ATOM	174	H	VAL	1	444	20.984	58.057	21.205	1.00	0.00
ATOM	175	N	LEU	1	445	18.238	55.392	22.276	1.00	0.00
ATOM	176	CA	LEU	1	445	17.191	54.528	22.805	1.00	0.00
ATOM	177	C	LEU	1	445	17.003	53.178	22.162	1.00	0.00
ATOM	178	O	LEU	1	445	16.267	52.982	21.190	1.00	0.00
ATOM	179	CB	LEU	1	445	15.861	55.278	22.942	1.00	0.00
ATOM	180	CG	LEU	1	445	15.926	56.363	24.020	1.00	0.00
ATOM	181	CD1	LEU	1	445	14.686	57.257	24.009	1.00	0.00
ATOM	182	CD2	LEU	1	445	16.190	55.768	25.405	1.00	0.00
ATOM	183	H	LEU	1	445	19.012	55.682	22.834	1.00	0.00
ATOM	184	N	PHE	1	446	17.667	52.243	22.863	1.00	0.00
ATOM	185	CA	PHE	1	446	17.499	50.792	22.711	1.00	0.00
ATOM	186	C	PHE	1	446	16.341	50.249	21.880	1.00	0.00
ATOM	187	O	PHE	1	446	15.163	50.174	22.243	1.00	0.00
ATOM	188	CB	PHE	1	446	17.601	50.086	24.075	1.00	0.00
ATOM	189	CG	PHE	1	446	16.942	50.872	25.190	1.00	0.00
ATOM	190	CD1	PHE	1	446	17.754	51.626	26.066	1.00	0.00
ATOM	191	CD2	PHE	1	446	15.539	50.838	25.347	1.00	0.00
ATOM	192	CE1	PHE	1	446	17.159	52.353	27.115	1.00	0.00
ATOM	193	CE2	PHE	1	446	14.941	51.565	26.395	1.00	0.00
ATOM	194	CZ	PHE	1	446	15.758	52.314	27.269	1.00	0.00
ATOM	195	H	PHE	1	446	18.393	52.615	23.444	1.00	0.00
ATOM	196	N	LYS	1	447	16.779	49.840	20.674	1.00	0.00
ATOM	197	CA	LYS	1	447	15.885	49.287	19.657	1.00	0.00
ATOM	198	C	LYS	1	447	16.685	48.583	18.569	1.00	0.00

ATOM	199	O	LYS	1	447	17.061	49.213	17.589	1.00	0.00
ATOM	200	CB	LYS	1	447	15.052	50.424	19.041	1.00	0.00
ATOM	201	CG	LYS	1	447	13.626	50.082	18.589	1.00	0.00
ATOM	202	CD	LYS	1	447	13.453	49.205	17.341	1.00	0.00
ATOM	203	CE	LYS	1	447	13.982	49.807	16.031	1.00	0.00
ATOM	204	NZ	LYS	1	447	15.345	49.332	15.781	1.00	0.00
ATOM	205	H	LYS	1	447	17.753	49.971	20.474	1.00	0.00
ATOM	206	1HZ	LYS	1	447	15.427	48.333	16.052	1.00	0.00
ATOM	207	2HZ	LYS	1	447	15.621	49.376	14.781	1.00	0.00
ATOM	208	3HZ	LYS	1	447	16.055	49.850	16.335	1.00	0.00
ATOM	209	N	LYS	1	448	16.922	47.273	18.750	1.00	0.00
ATOM	210	CA	LYS	1	448	17.628	46.529	17.696	1.00	0.00
ATOM	211	C	LYS	1	448	16.842	46.428	16.389	1.00	0.00
ATOM	212	O	LYS	1	448	15.635	46.656	16.339	1.00	0.00
ATOM	213	CB	LYS	1	448	18.000	45.121	18.199	1.00	0.00
ATOM	214	CG	LYS	1	448	19.423	44.956	18.762	1.00	0.00
ATOM	215	CD	LYS	1	448	20.490	44.980	17.663	1.00	0.00
ATOM	216	CE	LYS	1	448	21.961	45.141	18.082	1.00	0.00
ATOM	217	NZ	LYS	1	448	22.795	45.329	16.885	1.00	0.00
ATOM	218	H	LYS	1	448	16.473	46.795	19.504	1.00	0.00
ATOM	219	1HZ	LYS	1	448	22.871	44.446	16.342	1.00	0.00
ATOM	220	2HZ	LYS	1	448	22.369	46.042	16.256	1.00	0.00
ATOM	221	3HZ	LYS	1	448	23.770	45.603	17.121	1.00	0.00
ATOM	222	N	SER	1	449	17.589	46.066	15.342	1.00	0.00
ATOM	223	CA	SER	1	449	16.982	45.670	14.065	1.00	0.00
ATOM	224	C	SER	1	449	17.880	44.735	13.261	1.00	0.00
ATOM	225	O	SER	1	449	17.806	44.644	12.036	1.00	0.00
ATOM	226	CB	SER	1	449	16.613	46.882	13.186	1.00	0.00
ATOM	227	OG	SER	1	449	16.525	48.091	13.970	1.00	0.00
ATOM	228	H	SER	1	449	18.578	46.234	15.380	1.00	0.00
ATOM	229	HG	SER	1	449	17.450	48.259	14.182	1.00	0.00
ATOM	230	N	ASP	1	450	18.768	44.051	14.008	1.00	0.00
ATOM	231	CA	ASP	1	450	19.902	43.386	13.364	1.00	0.00
ATOM	232	C	ASP	1	450	19.627	42.151	12.518	1.00	0.00
ATOM	233	O	ASP	1	450	19.835	41.013	12.911	1.00	0.00
ATOM	234	CB	ASP	1	450	21.009	43.091	14.383	1.00	0.00
ATOM	235	CG	ASP	1	450	22.343	43.743	14.030	1.00	0.00
ATOM	236	OD1	ASP	1	450	23.246	43.666	14.855	1.00	0.00
ATOM	237	OD2	ASP	1	450	22.496	44.333	12.961	1.00	0.00
ATOM	238	H	ASP	1	450	18.693	44.094	14.999	1.00	0.00
ATOM	239	N	LYS	1	451	19.209	42.448	11.285	1.00	0.00
ATOM	240	CA	LYS	1	451	19.489	41.590	10.132	1.00	0.00
ATOM	241	C	LYS	1	451	20.968	41.225	10.095	1.00	0.00
ATOM	242	O	LYS	1	451	21.794	42.104	10.338	1.00	0.00
ATOM	243	CB	LYS	1	451	19.069	42.321	8.835	1.00	0.00
ATOM	244	CG	LYS	1	451	19.845	43.600	8.444	1.00	0.00
ATOM	245	CD	LYS	1	451	19.617	44.819	9.350	1.00	0.00
ATOM	246	CE	LYS	1	451	20.881	45.542	9.835	1.00	0.00
ATOM	247	NZ	LYS	1	451	21.822	44.664	10.551	1.00	0.00
ATOM	248	H	LYS	1	451	18.751	43.322	11.155	1.00	0.00
ATOM	249	1HZ	LYS	1	451	22.220	43.888	9.980	1.00	0.00
ATOM	250	2HZ	LYS	1	451	22.639	45.223	10.859	1.00	0.00
ATOM	251	3HZ	LYS	1	451	21.482	44.255	11.443	1.00	0.00
ATOM	252	N	PRO	1	452	21.274	39.939	9.810	1.00	0.00
ATOM	253	CA	PRO	1	452	22.657	39.447	9.917	1.00	0.00
ATOM	254	C	PRO	1	452	23.690	40.087	8.993	1.00	0.00
ATOM	255	O	PRO	1	452	24.892	39.921	9.170	1.00	0.00
ATOM	256	CB	PRO	1	452	22.496	37.936	9.708	1.00	0.00
ATOM	257	CG	PRO	1	452	21.211	37.774	8.900	1.00	0.00
ATOM	258	CD	PRO	1	452	20.332	38.887	9.454	1.00	0.00
ATOM	259	N	LEU	1	453	23.191	40.842	8.000	1.00	0.00
ATOM	260	CA	LEU	1	453	24.118	41.808	7.421	1.00	0.00
ATOM	261	C	LEU	1	453	24.117	43.067	8.268	1.00	0.00
ATOM	262	O	LEU	1	453	23.063	43.664	8.484	1.00	0.00
ATOM	263	CB	LEU	1	453	23.724	42.119	5.974	1.00	0.00
ATOM	264	CG	LEU	1	453	24.708	43.039	5.241	1.00	0.00
ATOM	265	CD1	LEU	1	453	26.102	42.419	5.121	1.00	0.00

ATOM	266	CD2	LEU	1	453	24.160	43.485	3.886	1.00	0.00
ATOM	267	H	LEU	1	453	22.211	40.846	7.808	1.00	0.00
ATOM	268	N	TYR	1	454	25.329	43.427	8.730	1.00	0.00
ATOM	269	CA	TYR	1	454	25.478	44.528	9.695	1.00	0.00
ATOM	270	C	TYR	1	454	24.631	45.786	9.487	1.00	0.00
ATOM	271	O	TYR	1	454	23.898	46.188	10.391	1.00	0.00
ATOM	272	CB	TYR	1	454	26.962	44.829	9.991	1.00	0.00
ATOM	273	CG	TYR	1	454	27.729	45.364	8.800	1.00	0.00
ATOM	274	CD1	TYR	1	454	28.152	44.479	7.785	1.00	0.00
ATOM	275	CD2	TYR	1	454	28.016	46.743	8.748	1.00	0.00
ATOM	276	CE1	TYR	1	454	28.868	44.985	6.688	1.00	0.00
ATOM	277	CE2	TYR	1	454	28.735	47.250	7.654	1.00	0.00
ATOM	278	CZ	TYR	1	454	29.146	46.366	6.636	1.00	0.00
ATOM	279	OH	TYR	1	454	29.831	46.879	5.548	1.00	0.00
ATOM	280	H	TYR	1	454	26.065	42.779	8.535	1.00	0.00
ATOM	281	HH	TYR	1	454	30.640	47.262	5.894	1.00	0.00
ATOM	282	N	GLY	1	455	24.681	46.322	8.248	1.00	0.00
ATOM	283	CA	GLY	1	455	23.647	47.259	7.782	1.00	0.00
ATOM	284	C	GLY	1	455	23.288	48.432	8.689	1.00	0.00
ATOM	285	O	GLY	1	455	24.019	48.788	9.613	1.00	0.00
ATOM	286	H	GLY	1	455	25.419	46.012	7.648	1.00	0.00
ATOM	287	N	ASN	1	456	22.123	49.025	8.387	1.00	0.00
ATOM	288	CA	ASN	1	456	21.833	50.251	9.139	1.00	0.00
ATOM	289	C	ASN	1	456	21.053	50.088	10.423	1.00	0.00
ATOM	290	O	ASN	1	456	20.036	50.736	10.675	1.00	0.00
ATOM	291	CB	ASN	1	456	21.223	51.325	8.236	1.00	0.00
ATOM	292	CG	ASN	1	456	22.366	52.002	7.514	1.00	0.00
ATOM	293	OD1	ASN	1	456	23.364	51.381	7.172	1.00	0.00
ATOM	294	ND2	ASN	1	456	22.227	53.321	7.365	1.00	0.00
ATOM	295	H	ASN	1	456	21.593	48.740	7.592	1.00	0.00
ATOM	296	1HD2	ASN	1	456	23.042	53.793	7.015	1.00	0.00
ATOM	297	2HD2	ASN	1	456	21.416	53.865	7.573	1.00	0.00
ATOM	298	N	ASP	1	457	21.581	49.161	11.228	1.00	0.00
ATOM	299	CA	ASP	1	457	21.077	49.019	12.587	1.00	0.00
ATOM	300	C	ASP	1	457	21.906	49.828	13.563	1.00	0.00
ATOM	301	O	ASP	1	457	23.113	50.011	13.396	1.00	0.00
ATOM	302	CB	ASP	1	457	21.032	47.544	13.006	1.00	0.00
ATOM	303	CG	ASP	1	457	20.298	47.378	14.326	1.00	0.00
ATOM	304	OD1	ASP	1	457	20.704	46.551	15.134	1.00	0.00
ATOM	305	OD2	ASP	1	457	19.316	48.080	14.557	1.00	0.00
ATOM	306	H	ASP	1	457	22.468	48.789	10.968	1.00	0.00
ATOM	307	N	ARG	1	458	21.185	50.326	14.575	1.00	0.00
ATOM	308	CA	ARG	1	458	21.756	51.237	15.560	1.00	0.00
ATOM	309	C	ARG	1	458	22.887	50.633	16.369	1.00	0.00
ATOM	310	O	ARG	1	458	22.698	49.911	17.342	1.00	0.00
ATOM	311	CB	ARG	1	458	20.621	51.755	16.451	1.00	0.00
ATOM	312	CG	ARG	1	458	20.970	52.868	17.446	1.00	0.00
ATOM	313	CD	ARG	1	458	20.934	52.394	18.902	1.00	0.00
ATOM	314	NE	ARG	1	458	22.274	52.174	19.447	1.00	0.00
ATOM	315	CZ	ARG	1	458	22.528	52.312	20.772	1.00	0.00
ATOM	316	NH1	ARG	1	458	23.775	52.156	21.205	1.00	0.00
ATOM	317	NH2	ARG	1	458	21.545	52.578	21.631	1.00	0.00
ATOM	318	H	ARG	1	458	20.291	49.908	14.714	1.00	0.00
ATOM	319	HE	ARG	1	458	23.025	51.873	18.851	1.00	0.00
ATOM	320	1HH1	ARG	1	458	24.539	52.170	20.548	1.00	0.00
ATOM	321	2HH1	ARG	1	458	23.971	52.020	22.183	1.00	0.00
ATOM	322	1HH2	ARG	1	458	21.733	52.667	22.616	1.00	0.00
ATOM	323	2HH2	ARG	1	458	20.600	52.655	21.308	1.00	0.00
ATOM	324	N	PHE	1	459	24.093	50.987	15.937	1.00	0.00
ATOM	325	CA	PHE	1	459	25.211	50.757	16.842	1.00	0.00
ATOM	326	C	PHE	1	459	25.494	52.044	17.589	1.00	0.00
ATOM	327	O	PHE	1	459	25.107	52.202	18.751	1.00	0.00
ATOM	328	CB	PHE	1	459	26.424	50.202	16.081	1.00	0.00
ATOM	329	CG	PHE	1	459	26.018	48.996	15.259	1.00	0.00
ATOM	330	CD1	PHE	1	459	26.017	49.096	13.850	1.00	0.00
ATOM	331	CD2	PHE	1	459	25.641	47.796	15.903	1.00	0.00
ATOM	332	CE1	PHE	1	459	25.624	47.988	13.074	1.00	0.00

ATOM	333	CE2	PHE	1	459	25.249	46.687	15.129	1.00	0.00
ATOM	334	CZ	PHE	1	459	25.240	46.795	13.723	1.00	0.00
ATOM	335	H	PHE	1	459	24.157	51.522	15.097	1.00	0.00
ATOM	336	N	GLU	1	460	26.069	52.992	16.816	1.00	0.00
ATOM	337	CA	GLU	1	460	26.318	54.335	17.332	1.00	0.00
ATOM	338	C	GLU	1	460	26.015	55.451	16.314	1.00	0.00
ATOM	339	O	GLU	1	460	25.295	55.185	15.352	1.00	0.00
ATOM	340	CB	GLU	1	460	27.650	54.371	18.109	1.00	0.00
ATOM	341	CG	GLU	1	460	28.991	54.650	17.432	1.00	0.00
ATOM	342	CD	GLU	1	460	29.593	55.840	18.158	1.00	0.00
ATOM	343	OE1	GLU	1	460	28.923	56.850	18.264	1.00	0.00
ATOM	344	OE2	GLU	1	460	30.723	55.793	18.622	1.00	0.00
ATOM	345	H	GLU	1	460	26.290	52.811	15.859	1.00	0.00
ATOM	346	N	GLY	1	461	26.466	56.695	16.584	1.00	0.00
ATOM	347	CA	GLY	1	461	25.962	57.844	15.814	1.00	0.00
ATOM	348	C	GLY	1	461	27.014	58.898	15.473	1.00	0.00
ATOM	349	O	GLY	1	461	27.321	59.189	14.312	1.00	0.00
ATOM	350	H	GLY	1	461	27.152	56.871	17.292	1.00	0.00
ATOM	351	N	TYR	1	462	27.595	59.435	16.570	1.00	0.00
ATOM	352	CA	TYR	1	462	28.710	60.373	16.414	1.00	0.00
ATOM	353	C	TYR	1	462	29.918	59.729	15.764	1.00	0.00
ATOM	354	O	TYR	1	462	30.716	60.354	15.063	1.00	0.00
ATOM	355	CB	TYR	1	462	29.074	60.997	17.771	1.00	0.00
ATOM	356	CG	TYR	1	462	30.079	62.123	17.618	1.00	0.00
ATOM	357	CD1	TYR	1	462	31.386	61.950	18.122	1.00	0.00
ATOM	358	CD2	TYR	1	462	29.685	63.316	16.978	1.00	0.00
ATOM	359	CE1	TYR	1	462	32.317	62.996	17.985	1.00	0.00
ATOM	360	CE2	TYR	1	462	30.614	64.358	16.841	1.00	0.00
ATOM	361	CZ	TYR	1	462	31.918	64.188	17.346	1.00	0.00
ATOM	362	OH	TYR	1	462	32.832	65.223	17.202	1.00	0.00
ATOM	363	H	TYR	1	462	27.418	58.980	17.440	1.00	0.00
ATOM	364	HH	TYR	1	462	32.507	65.837	16.547	1.00	0.00
ATOM	365	N	CYS	1	463	29.986	58.413	16.006	1.00	0.00
ATOM	366	CA	CYS	1	463	30.912	57.668	15.179	1.00	0.00
ATOM	367	C	CYS	1	463	30.295	56.846	14.073	1.00	0.00
ATOM	368	O	CYS	1	463	30.993	56.278	13.244	1.00	0.00
ATOM	369	CB	CYS	1	463	31.914	56.882	16.009	1.00	0.00
ATOM	370	SG	CYS	1	463	32.876	57.991	17.077	1.00	0.00
ATOM	371	H	CYS	1	463	29.406	57.960	16.679	1.00	0.00
ATOM	372	N	LEU	1	464	28.959	56.857	13.992	1.00	0.00
ATOM	373	CA	LEU	1	464	28.435	56.438	12.685	1.00	0.00
ATOM	374	C	LEU	1	464	28.868	57.374	11.562	1.00	0.00
ATOM	375	O	LEU	1	464	29.049	56.991	10.410	1.00	0.00
ATOM	376	CB	LEU	1	464	26.913	56.272	12.718	1.00	0.00
ATOM	377	CG	LEU	1	464	26.271	55.636	11.480	1.00	0.00
ATOM	378	CD1	LEU	1	464	26.795	54.226	11.200	1.00	0.00
ATOM	379	CD2	LEU	1	464	24.745	55.660	11.577	1.00	0.00
ATOM	380	H	LEU	1	464	28.395	57.273	14.702	1.00	0.00
ATOM	381	N	ASP	1	465	29.063	58.647	11.954	1.00	0.00
ATOM	382	CA	ASP	1	465	29.816	59.482	11.028	1.00	0.00
ATOM	383	C	ASP	1	465	31.322	59.508	11.249	1.00	0.00
ATOM	384	O	ASP	1	465	32.080	59.566	10.286	1.00	0.00
ATOM	385	CB	ASP	1	465	29.218	60.891	10.934	1.00	0.00
ATOM	386	CG	ASP	1	465	29.255	61.615	12.264	1.00	0.00
ATOM	387	OD1	ASP	1	465	28.242	61.640	12.958	1.00	0.00
ATOM	388	OD2	ASP	1	465	30.285	63.192	12.603	1.00	0.00
ATOM	389	H	ASP	1	465	28.793	59.017	12.849	1.00	0.00
ATOM	390	N	LEU	1	466	31.739	59.472	12.531	1.00	0.00
ATOM	391	CA	LEU	1	466	33.189	59.459	12.730	1.00	0.00
ATOM	392	C	LEU	1	466	33.908	58.221	12.225	1.00	0.00
ATOM	393	O	LEU	1	466	34.692	58.317	11.292	1.00	0.00
ATOM	394	CB	LEU	1	466	33.591	59.787	14.168	1.00	0.00
ATOM	395	CG	LEU	1	466	34.824	60.681	14.283	1.00	0.00
ATOM	396	CD1	LEU	1	466	34.586	62.050	13.643	1.00	0.00
ATOM	397	CD2	LEU	1	466	35.291	60.805	15.734	1.00	0.00
ATOM	398	H	LEU	1	466	31.061	59.691	13.236	1.00	0.00
ATOM	399	N	LEU	1	467	33.628	57.059	12.836	1.00	0.00

ATOM	400	CA	LEU	1	467	34.318	55.802	12.516	1.00	0.00
ATOM	401	C	LEU	1	467	34.431	55.466	11.033	1.00	0.00
ATOM	402	O	LEU	1	467	35.434	54.937	10.544	1.00	0.00
ATOM	403	CB	LEU	1	467	33.647	54.684	13.330	1.00	0.00
ATOM	404	CG	LEU	1	467	34.067	53.242	13.059	1.00	0.00
ATOM	405	CD1	LEU	1	467	34.199	52.443	14.351	1.00	0.00
ATOM	406	CD2	LEU	1	467	33.148	52.552	12.049	1.00	0.00
ATOM	407	H	LEU	1	467	32.874	57.017	13.487	1.00	0.00
ATOM	408	N	ARG	1	468	33.344	55.825	10.325	1.00	0.00
ATOM	409	CA	ARG	1	468	33.392	55.682	8.871	1.00	0.00
ATOM	410	C	ARG	1	468	34.526	56.471	8.234	1.00	0.00
ATOM	411	O	ARG	1	468	35.390	55.933	7.543	1.00	0.00
ATOM	412	CB	ARG	1	468	32.051	56.054	8.247	1.00	0.00
ATOM	413	CG	ARG	1	468	31.581	55.039	7.200	1.00	0.00
ATOM	414	CD	ARG	1	468	30.537	55.596	6.221	1.00	0.00
ATOM	415	NE	ARG	1	468	31.178	56.359	5.145	1.00	0.00
ATOM	416	CZ	ARG	1	468	31.359	57.696	5.241	1.00	0.00
ATOM	417	NH1	ARG	1	468	32.095	58.314	4.327	1.00	0.00
ATOM	418	NH2	ARG	1	468	30.836	58.394	6.250	1.00	0.00
ATOM	419	H	ARG	1	468	32.632	56.345	10.797	1.00	0.00
ATOM	420	HE	ARG	1	468	31.657	55.812	4.448	1.00	0.00
ATOM	421	1HH1	ARG	1	468	32.383	59.268	4.504	1.00	0.00
ATOM	422	2HH1	ARG	1	468	32.454	57.882	3.501	1.00	0.00
ATOM	423	1HH2	ARG	1	468	30.977	59.394	6.267	1.00	0.00
ATOM	424	2HH2	ARG	1	468	30.348	57.961	7.013	1.00	0.00
ATOM	425	N	GLU	1	469	34.555	57.766	8.560	1.00	0.00
ATOM	426	CA	GLU	1	469	35.677	58.544	8.052	1.00	0.00
ATOM	427	C	GLU	1	469	37.029	58.208	8.690	1.00	0.00
ATOM	428	O	GLU	1	469	38.083	58.416	8.105	1.00	0.00
ATOM	429	CB	GLU	1	469	35.366	60.049	8.063	1.00	0.00
ATOM	430	CG	GLU	1	469	33.927	60.477	7.689	1.00	0.00
ATOM	431	CD	GLU	1	469	33.465	60.204	6.254	1.00	0.00
ATOM	432	OE1	GLU	1	469	34.169	59.617	5.449	1.00	0.00
ATOM	433	OE2	GLU	1	469	32.344	60.562	5.910	1.00	0.00
ATOM	434	H	GLU	1	469	33.874	58.176	9.168	1.00	0.00
ATOM	435	N	LEU	1	470	36.994	57.600	9.889	1.00	0.00
ATOM	436	CA	LEU	1	470	38.250	57.067	10.436	1.00	0.00
ATOM	437	C	LEU	1	470	38.776	55.846	9.692	1.00	0.00
ATOM	438	O	LEU	1	470	39.864	55.312	9.909	1.00	0.00
ATOM	439	CB	LEU	1	470	38.092	56.763	11.924	1.00	0.00
ATOM	440	CG	LEU	1	470	37.965	58.019	12.782	1.00	0.00
ATOM	441	CD1	LEU	1	470	37.542	57.695	14.212	1.00	0.00
ATOM	442	CD2	LEU	1	470	39.254	58.833	12.762	1.00	0.00
ATOM	443	H	LEU	1	470	36.101	57.426	10.308	1.00	0.00
ATOM	444	N	SER	1	471	37.937	55.386	8.764	1.00	0.00
ATOM	445	CA	SER	1	471	38.437	54.432	7.793	1.00	0.00
ATOM	446	C	SER	1	471	38.981	55.060	6.517	1.00	0.00
ATOM	447	O	SER	1	471	39.891	54.526	5.898	1.00	0.00
ATOM	448	CB	SER	1	471	37.343	53.416	7.504	1.00	0.00
ATOM	449	OG	SER	1	471	37.138	52.609	8.665	1.00	0.00
ATOM	450	H	SER	1	471	37.018	55.774	8.695	1.00	0.00
ATOM	451	HG	SER	1	471	36.418	53.035	9.140	1.00	0.00
ATOM	452	N	THR	1	472	38.386	56.200	6.149	1.00	0.00
ATOM	453	CA	THR	1	472	38.632	56.782	4.831	1.00	0.00
ATOM	454	C	THR	1	472	39.949	57.549	4.615	1.00	0.00
ATOM	455	O	THR	1	472	40.156	58.190	3.585	1.00	0.00
ATOM	456	CB	THR	1	472	37.352	57.555	4.409	1.00	0.00
ATOM	457	OG1	THR	1	472	36.986	57.286	3.044	1.00	0.00
ATOM	458	CG2	THR	1	472	37.389	59.059	4.709	1.00	0.00
ATOM	459	H	THR	1	472	37.741	56.694	6.735	1.00	0.00
ATOM	460	HG1	THR	1	472	37.003	56.337	2.964	1.00	0.00
ATOM	461	N	ILE	1	473	40.862	57.437	5.592	1.00	0.00
ATOM	462	CA	ILE	1	473	42.235	57.795	5.232	1.00	0.00
ATOM	463	C	ILE	1	473	43.166	56.589	5.161	1.00	0.00
ATOM	464	O	ILE	1	473	43.824	56.337	4.160	1.00	0.00
ATOM	465	CB	ILE	1	473	42.764	58.961	6.084	1.00	0.00
ATOM	466	CG1	ILE	1	473	44.192	59.367	5.699	1.00	0.00

ATOM	467	CG2	ILE	1	473	42.651	58.629	7.566	1.00	0.00
ATOM	468	CD1	ILE	1	473	44.698	60.592	6.462	1.00	0.00
ATOM	469	H	ILE	1	473	40.628	57.026	6.465	1.00	0.00
ATOM	470	N	LEU	1	474	43.140	55.737	6.204	1.00	0.00
ATOM	471	CA	LEU	1	474	43.791	54.455	5.924	1.00	0.00
ATOM	472	C	LEU	1	474	42.834	53.464	5.287	1.00	0.00
ATOM	473	O	LEU	1	474	42.187	52.678	5.967	1.00	0.00
ATOM	474	CB	LEU	1	474	44.479	53.851	7.152	1.00	0.00
ATOM	475	CG	LEU	1	474	45.446	52.726	6.752	1.00	0.00
ATOM	476	CD1	LEU	1	474	46.601	53.248	5.895	1.00	0.00
ATOM	477	CD2	LEU	1	474	45.945	51.916	7.948	1.00	0.00
ATOM	478	H	LEU	1	474	42.713	56.012	7.065	1.00	0.00
ATOM	479	N	GLY	1	475	42.747	53.576	3.953	1.00	0.00
ATOM	480	CA	GLY	1	475	41.694	52.937	3.155	1.00	0.00
ATOM	481	C	GLY	1	475	41.140	51.576	3.568	1.00	0.00
ATOM	482	O	GLY	1	475	41.510	50.534	3.033	1.00	0.00
ATOM	483	H	GLY	1	475	43.313	54.312	3.568	1.00	0.00
ATOM	484	N	PHE	1	476	40.189	51.661	4.504	1.00	0.00
ATOM	485	CA	PHE	1	476	39.508	50.467	4.977	1.00	0.00
ATOM	486	C	PHE	1	476	38.024	50.709	5.165	1.00	0.00
ATOM	487	O	PHE	1	476	37.479	51.792	4.977	1.00	0.00
ATOM	488	CB	PHE	1	476	40.109	49.990	6.311	1.00	0.00
ATOM	489	CG	PHE	1	476	41.333	49.128	6.104	1.00	0.00
ATOM	490	CD1	PHE	1	476	42.606	49.637	6.441	1.00	0.00
ATOM	491	CD2	PHE	1	476	41.181	47.819	5.595	1.00	0.00
ATOM	492	CE1	PHE	1	476	43.744	48.825	6.274	1.00	0.00
ATOM	493	CE2	PHE	1	476	42.319	47.005	5.427	1.00	0.00
ATOM	494	CZ	PHE	1	476	43.588	47.516	5.772	1.00	0.00
ATOM	495	H	PHE	1	476	39.998	52.542	4.943	1.00	0.00
ATOM	496	N	THR	1	477	37.400	49.624	5.620	1.00	0.00
ATOM	497	CA	THR	1	477	36.155	49.827	6.326	1.00	0.00
ATOM	498	C	THR	1	477	36.179	49.050	7.628	1.00	0.00
ATOM	499	O	THR	1	477	36.128	47.819	7.665	1.00	0.00
ATOM	500	CB	THR	1	477	34.936	49.532	5.429	1.00	0.00
ATOM	501	OG1	THR	1	477	33.732	49.936	6.097	1.00	0.00
ATOM	502	CG2	THR	1	477	34.841	48.095	4.902	1.00	0.00
ATOM	503	H	THR	1	477	37.824	48.724	5.664	1.00	0.00
ATOM	504	HG1	THR	1	477	33.555	49.248	6.740	1.00	0.00
ATOM	505	N	TYR	1	478	36.264	49.860	8.701	1.00	0.00
ATOM	506	CA	TYR	1	478	36.012	49.356	10.048	1.00	0.00
ATOM	507	C	TYR	1	478	34.617	48.753	10.133	1.00	0.00
ATOM	508	O	TYR	1	478	33.791	46.903	9.222	1.00	0.00
ATOM	509	CB	TYR	1	478	36.049	50.449	11.128	1.00	0.00
ATOM	510	CG	TYR	1	478	37.307	51.275	11.342	1.00	0.00
ATOM	511	CD1	TYR	1	478	38.582	50.952	10.822	1.00	0.00
ATOM	512	CD2	TYR	1	478	37.113	52.423	12.130	1.00	0.00
ATOM	513	CE1	TYR	1	478	39.665	51.822	11.087	1.00	0.00
ATOM	514	CE2	TYR	1	478	38.183	53.278	12.404	1.00	0.00
ATOM	515	CZ	TYR	1	478	39.448	52.979	11.873	1.00	0.00
ATOM	516	OH	TYR	1	478	40.479	53.871	12.155	1.00	0.00
ATOM	517	H	TYR	1	478	36.289	50.853	8.591	1.00	0.00
ATOM	518	HH	TYR	1	478	40.091	54.550	12.720	1.00	0.00
ATOM	519	N	GLU	1	479	34.423	48.052	11.254	1.00	0.00
ATOM	520	CA	GLU	1	479	33.132	47.420	11.434	1.00	0.00
ATOM	521	C	GLU	1	479	32.405	47.978	12.627	1.00	0.00
ATOM	522	O	GLU	1	479	32.655	47.672	13.795	1.00	0.00
ATOM	523	CB	GLU	1	479	33.235	45.899	11.487	1.00	0.00
ATOM	524	CG	GLU	1	479	31.895	45.241	11.144	1.00	0.00
ATOM	525	CD	GLU	1	479	31.616	45.311	9.653	1.00	0.00
ATOM	526	OE1	GLU	1	479	31.570	46.394	9.076	1.00	0.00
ATOM	527	OE2	GLU	1	479	31.453	44.256	9.055	1.00	0.00
ATOM	528	H	GLU	1	479	35.076	48.036	12.012	1.00	0.00
ATOM	529	N	ILE	1	480	31.493	48.900	12.265	1.00	0.00
ATOM	530	CA	ILE	1	480	30.654	49.499	13.306	1.00	0.00
ATOM	531	C	ILE	1	480	29.576	48.548	13.793	1.00	0.00
ATOM	532	O	ILE	1	480	28.825	47.963	12.996	1.00	0.00
ATOM	533	CB	ILE	1	480	30.115	50.881	12.898	1.00	0.00

ATOM	534	CG1	ILE	1	480	29.472	51.582	14.098	1.00	0.00
ATOM	535	CG2	ILE	1	480	29.160	50.809	11.698	1.00	0.00
ATOM	536	CD1	ILE	1	480	29.278	53.079	13.888	1.00	0.00
ATOM	537	H	ILE	1	480	31.368	49.103	11.294	1.00	0.00
ATOM	538	N	ARG	1	481	29.593	48.312	15.098	1.00	0.00
ATOM	539	CA	ARG	1	481	29.201	46.992	15.554	1.00	0.00
ATOM	540	C	ARG	1	481	29.189	46.981	17.060	1.00	0.00
ATOM	541	O	ARG	1	481	29.570	47.936	17.743	1.00	0.00
ATOM	542	CB	ARG	1	481	30.224	45.967	15.048	1.00	0.00
ATOM	543	CG	ARG	1	481	29.695	44.575	14.726	1.00	0.00
ATOM	544	CD	ARG	1	481	30.859	43.657	14.383	1.00	0.00
ATOM	545	NE	ARG	1	481	30.388	42.306	14.120	1.00	0.00
ATOM	546	CZ	ARG	1	481	31.213	41.365	13.628	1.00	0.00
ATOM	547	NH1	ARG	1	481	30.726	40.150	13.442	1.00	0.00
ATOM	548	NH2	ARG	1	481	32.478	41.637	13.320	1.00	0.00
ATOM	549	H	ARG	1	481	30.106	48.909	15.709	1.00	0.00
ATOM	550	HE	ARG	1	481	29.419	42.107	14.290	1.00	0.00
ATOM	551	1HH1	ARG	1	481	31.308	39.432	13.047	1.00	0.00
ATOM	552	2HH1	ARG	1	481	29.791	39.904	13.688	1.00	0.00
ATOM	553	1HH2	ARG	1	481	33.096	40.896	12.993	1.00	0.00
ATOM	554	2HH2	ARG	1	481	32.914	42.531	13.423	1.00	0.00
ATOM	555	N	LEU	1	482	28.778	45.813	17.565	1.00	0.00
ATOM	556	CA	LEU	1	482	29.324	45.280	18.809	1.00	0.00
ATOM	557	C	LEU	1	482	29.353	43.786	18.608	1.00	0.00
ATOM	558	O	LEU	1	482	28.469	43.290	17.904	1.00	0.00
ATOM	559	CB	LEU	1	482	28.450	45.621	20.032	1.00	0.00
ATOM	560	CG	LEU	1	482	26.989	45.126	20.087	1.00	0.00
ATOM	561	CD1	LEU	1	482	26.470	45.124	21.525	1.00	0.00
ATOM	562	CD2	LEU	1	482	26.025	45.895	19.178	1.00	0.00
ATOM	563	H	LEU	1	482	28.335	45.171	16.937	1.00	0.00
ATOM	564	N	VAL	1	483	30.285	43.080	19.260	1.00	0.00
ATOM	565	CA	VAL	1	483	29.796	41.738	19.584	1.00	0.00
ATOM	566	C	VAL	1	483	28.855	41.771	20.789	1.00	0.00
ATOM	567	O	VAL	1	483	27.666	41.447	20.711	1.00	0.00
ATOM	568	CB	VAL	1	483	30.937	40.703	19.685	1.00	0.00
ATOM	569	CG1	VAL	1	483	31.448	40.394	18.275	1.00	0.00
ATOM	570	CG2	VAL	1	483	32.097	41.098	20.608	1.00	0.00
ATOM	571	H	VAL	1	483	31.081	43.515	19.678	1.00	0.00
ATOM	572	N	GLU	1	484	29.420	42.325	21.873	1.00	0.00
ATOM	573	CA	GLU	1	484	28.659	42.547	23.092	1.00	0.00
ATOM	574	C	GLU	1	484	29.310	43.705	23.841	1.00	0.00
ATOM	575	O	GLU	1	484	30.430	44.090	23.506	1.00	0.00
ATOM	576	CB	GLU	1	484	28.565	41.223	23.869	1.00	0.00
ATOM	577	CG	GLU	1	484	27.221	40.972	24.575	1.00	0.00
ATOM	578	CD	GLU	1	484	27.083	39.502	24.958	1.00	0.00
ATOM	579	OE1	GLU	1	484	26.700	38.706	24.109	1.00	0.00
ATOM	580	OE2	GLU	1	484	27.343	39.132	26.100	1.00	0.00
ATOM	581	H	GLU	1	484	30.378	42.598	21.843	1.00	0.00
ATOM	582	N	ASP	1	485	28.527	44.253	24.801	1.00	0.00
ATOM	583	CA	ASP	1	485	28.693	45.553	25.483	1.00	0.00
ATOM	584	C	ASP	1	485	30.040	46.252	25.399	1.00	0.00
ATOM	585	O	ASP	1	485	31.109	45.661	25.535	1.00	0.00
ATOM	586	CB	ASP	1	485	28.207	45.410	26.944	1.00	0.00
ATOM	587	CG	ASP	1	485	28.305	46.687	27.774	1.00	0.00
ATOM	588	OD1	ASP	1	485	27.339	47.420	27.903	1.00	0.00
ATOM	589	OD2	ASP	1	485	29.356	46.978	28.318	1.00	0.00
ATOM	590	H	ASP	1	485	27.751	43.694	25.090	1.00	0.00
ATOM	591	N	GLY	1	486	29.958	47.577	25.177	1.00	0.00
ATOM	592	CA	GLY	1	486	31.196	48.353	25.037	1.00	0.00
ATOM	593	C	GLY	1	486	32.144	48.470	26.235	1.00	0.00
ATOM	594	O	GLY	1	486	33.150	49.189	26.190	1.00	0.00
ATOM	595	H	GLY	1	486	29.038	47.969	25.096	1.00	0.00
ATOM	596	N	LYS	1	487	31.804	47.767	27.323	1.00	0.00
ATOM	597	CA	LYS	1	487	32.516	47.906	28.597	1.00	0.00
ATOM	598	C	LYS	1	487	32.823	46.581	29.274	1.00	0.00
ATOM	599	O	LYS	1	487	33.950	46.367	29.718	1.00	0.00
ATOM	600	CB	LYS	1	487	31.753	48.812	29.569	1.00	0.00

ATOM	601	CG	LYS	1	487	31.429	50.195	29.000	1.00	0.00
ATOM	602	CD	LYS	1	487	30.321	50.911	29.770	1.00	0.00
ATOM	603	CE	LYS	1	487	29.033	50.084	29.858	1.00	0.00
ATOM	604	NZ	LYS	1	487	28.576	49.683	28.528	1.00	0.00
ATOM	605	H	LYS	1	487	30.993	47.193	27.248	1.00	0.00
ATOM	606	1HZ	LYS	1	487	29.049	50.212	27.773	1.00	0.00
ATOM	607	2HZ	LYS	1	487	28.690	48.659	28.373	1.00	0.00
ATOM	608	3HZ	LYS	1	487	27.571	49.907	28.420	1.00	0.00
ATOM	609	N	TYR	1	488	31.801	45.687	29.290	1.00	0.00
ATOM	610	CA	TYR	1	488	32.098	44.313	29.699	1.00	0.00
ATOM	611	C	TYR	1	488	32.845	43.551	28.615	1.00	0.00
ATOM	612	O	TYR	1	488	33.699	42.709	28.896	1.00	0.00
ATOM	613	CB	TYR	1	488	30.827	43.563	30.208	1.00	0.00
ATOM	614	CG	TYR	1	488	30.419	42.415	29.296	1.00	0.00
ATOM	615	CD1	TYR	1	488	29.657	42.709	28.153	1.00	0.00
ATOM	616	CD2	TYR	1	488	30.878	41.104	29.557	1.00	0.00
ATOM	617	CE1	TYR	1	488	29.528	41.738	27.152	1.00	0.00
ATOM	618	CE2	TYR	1	488	30.730	40.121	28.558	1.00	0.00
ATOM	619	CZ	TYR	1	488	30.136	40.481	27.329	1.00	0.00
ATOM	620	OH	TYR	1	488	30.170	39.619	26.243	1.00	0.00
ATOM	621	H	TYR	1	488	30.930	45.872	28.828	1.00	0.00
ATOM	622	HH	TYR	1	488	29.339	39.128	26.277	1.00	0.00
ATOM	623	N	GLY	1	489	32.461	43.883	27.363	1.00	0.00
ATOM	624	CA	GLY	1	489	33.021	43.175	26.218	1.00	0.00
ATOM	625	C	GLY	1	489	34.260	43.800	25.616	1.00	0.00
ATOM	626	O	GLY	1	489	34.459	43.791	24.406	1.00	0.00
ATOM	627	H	GLY	1	489	31.769	44.597	27.232	1.00	0.00
ATOM	628	N	ALA	1	490	35.123	44.278	26.531	1.00	0.00
ATOM	629	CA	ALA	1	490	36.490	44.601	26.091	1.00	0.00
ATOM	630	C	ALA	1	490	37.401	43.374	25.963	1.00	0.00
ATOM	631	O	ALA	1	490	38.575	43.402	25.576	1.00	0.00
ATOM	632	CB	ALA	1	490	37.125	45.592	27.066	1.00	0.00
ATOM	633	H	ALA	1	490	34.909	44.177	27.505	1.00	0.00
ATOM	634	N	GLN	1	491	36.772	42.230	26.327	1.00	0.00
ATOM	635	CA	GLN	1	491	37.344	40.882	26.253	1.00	0.00
ATOM	636	C	GLN	1	491	37.960	40.430	24.932	1.00	0.00
ATOM	637	O	GLN	1	491	38.601	39.384	24.869	1.00	0.00
ATOM	638	CB	GLN	1	491	36.250	39.897	26.684	1.00	0.00
ATOM	639	CG	GLN	1	491	35.097	39.821	25.669	1.00	0.00
ATOM	640	CD	GLN	1	491	33.853	39.260	26.319	1.00	0.00
ATOM	641	OE1	GLN	1	491	33.236	39.876	27.180	1.00	0.00
ATOM	642	NE2	GLN	1	491	33.467	38.075	25.865	1.00	0.00
ATOM	643	H	GLN	1	491	35.831	42.334	26.641	1.00	0.00
ATOM	644	1HE2	GLN	1	491	32.684	37.612	26.280	1.00	0.00
ATOM	645	2HE2	GLN	1	491	33.986	37.750	25.076	1.00	0.00
ATOM	646	N	ASP	1	492	37.667	41.211	23.883	1.00	0.00
ATOM	647	CA	ASP	1	492	38.033	40.828	22.524	1.00	0.00
ATOM	648	C	ASP	1	492	39.495	40.469	22.323	1.00	0.00
ATOM	649	O	ASP	1	492	39.848	39.368	21.902	1.00	0.00
ATOM	650	CB	ASP	1	492	37.606	41.963	21.591	1.00	0.00
ATOM	651	CG	ASP	1	492	37.921	41.652	20.143	1.00	0.00
ATOM	652	OD1	ASP	1	492	37.066	41.118	19.454	1.00	0.00
ATOM	653	OD2	ASP	1	492	39.015	41.965	19.676	1.00	0.00
ATOM	654	H	ASP	1	492	37.221	43.091	24.021	1.00	0.00
ATOM	655	N	ASP	1	493	40.338	41.475	22.627	1.00	0.00
ATOM	656	CA	ASP	1	493	41.707	41.500	22.081	1.00	0.00
ATOM	657	C	ASP	1	493	42.532	40.224	22.128	1.00	0.00
ATOM	658	O	ASP	1	493	42.669	39.505	21.132	1.00	0.00
ATOM	659	CB	ASP	1	493	42.513	42.695	22.628	1.00	0.00
ATOM	660	CG	ASP	1	493	43.799	42.889	21.826	1.00	0.00
ATOM	661	OD1	ASP	1	493	43.776	42.763	20.614	1.00	0.00
ATOM	662	OD2	ASP	1	493	44.842	43.151	22.399	1.00	0.00
ATOM	663	H	ASP	1	493	39.869	42.306	22.916	1.00	0.00
ATOM	664	N	VAL	1	494	43.062	39.967	23.336	1.00	0.00
ATOM	665	CA	VAL	1	494	43.909	38.790	23.520	1.00	0.00
ATOM	666	C	VAL	1	494	43.119	37.501	23.335	1.00	0.00
ATOM	667	O	VAL	1	494	43.628	36.421	23.051	1.00	0.00

ATOM	668	CB	VAL	1	494	44.595	38.852	24.897	1.00	0.00
ATOM	669	CG1	VAL	1	494	45.603	37.717	25.112	1.00	0.00
ATOM	670	CG2	VAL	1	494	45.262	40.215	25.105	1.00	0.00
ATOM	671	H	VAL	1	494	42.754	40.533	24.094	1.00	0.00
ATOM	672	N	ASN	1	495	41.797	37.655	23.480	1.00	0.00
ATOM	673	CA	ASN	1	495	40.938	36.508	23.173	1.00	0.00
ATOM	674	C	ASN	1	495	40.918	36.093	21.702	1.00	0.00
ATOM	675	O	ASN	1	495	40.667	34.941	21.341	1.00	0.00
ATOM	676	CB	ASN	1	495	39.532	36.745	23.723	1.00	0.00
ATOM	677	CG	ASN	1	495	38.751	35.459	23.700	1.00	0.00
ATOM	678	OD1	ASN	1	495	38.966	34.551	24.500	1.00	0.00
ATOM	679	ND2	ASN	1	495	37.900	35.374	22.681	1.00	0.00
ATOM	680	H	ASN	1	495	41.450	38.590	23.590	1.00	0.00
ATOM	681	1HD2	ASN	1	495	37.473	34.502	22.451	1.00	0.00
ATOM	682	2HD2	ASN	1	495	37.737	36.196	22.137	1.00	0.00
ATOM	683	N	GLY	1	496	41.252	37.069	20.859	1.00	0.00
ATOM	684	CA	GLY	1	496	41.492	36.632	19.503	1.00	0.00
ATOM	685	C	GLY	1	496	42.950	36.423	19.187	1.00	0.00
ATOM	686	O	GLY	1	496	43.426	36.872	18.156	1.00	0.00
ATOM	687	H	GLY	1	496	41.434	38.000	21.167	1.00	0.00
ATOM	688	N	GLN	1	497	43.653	35.691	20.067	1.00	0.00
ATOM	689	CA	GLN	1	497	44.992	35.197	19.702	1.00	0.00
ATOM	690	C	GLN	1	497	45.079	34.517	18.339	1.00	0.00
ATOM	691	O	GLN	1	497	46.094	34.507	17.654	1.00	0.00
ATOM	692	CB	GLN	1	497	45.480	34.166	20.712	1.00	0.00
ATOM	693	CG	GLN	1	497	45.906	34.705	22.071	1.00	0.00
ATOM	694	CD	GLN	1	497	46.059	33.533	23.013	1.00	0.00
ATOM	695	OE1	GLN	1	497	45.681	32.405	22.722	1.00	0.00
ATOM	696	NE2	GLN	1	497	46.656	33.835	24.170	1.00	0.00
ATOM	697	H	GLN	1	497	43.214	35.515	20.948	1.00	0.00
ATOM	698	1HE2	GLN	1	497	46.856	33.098	24.813	1.00	0.00
ATOM	699	2HE2	GLN	1	497	46.862	34.791	24.370	1.00	0.00
ATOM	700	N	TRP	1	498	43.962	33.863	18.024	1.00	0.00
ATOM	701	CA	TRP	1	498	43.735	33.396	16.665	1.00	0.00
ATOM	702	C	TRP	1	498	42.494	34.118	16.183	1.00	0.00
ATOM	703	O	TRP	1	498	42.570	35.221	15.652	1.00	0.00
ATOM	704	CB	TRP	1	498	43.708	31.850	16.557	1.00	0.00
ATOM	705	CG	TRP	1	498	43.126	31.126	17.762	1.00	0.00
ATOM	706	CD1	TRP	1	498	43.717	30.982	19.028	1.00	0.00
ATOM	707	CD2	TRP	1	498	41.881	30.396	17.854	1.00	0.00
ATOM	708	NE1	TRP	1	498	42.947	30.239	19.864	1.00	0.00
ATOM	709	CE2	TRP	1	498	41.800	29.850	19.181	1.00	0.00
ATOM	710	CE3	TRP	1	498	40.837	30.155	16.936	1.00	0.00
ATOM	711	CZ2	TRP	1	498	40.683	29.076	19.659	1.00	0.00
ATOM	712	CZ3	TRP	1	498	39.724	29.381	17.328	1.00	0.00
ATOM	713	CH2	TRP	1	498	39.647	28.843	18.631	1.00	0.00
ATOM	714	H	TRP	1	498	43.137	33.943	18.646	1.00	0.00
ATOM	715	HE1	TRP	1	498	43.187	30.035	20.795	1.00	0.00
ATOM	716	N	ASN	1	499	41.339	33.527	16.487	1.00	0.00
ATOM	717	CA	ASN	1	499	40.160	34.369	16.667	1.00	0.00
ATOM	718	C	ASN	1	499	39.188	33.619	17.527	1.00	0.00
ATOM	719	O	ASN	1	499	38.184	33.095	17.054	1.00	0.00
ATOM	720	CB	ASN	1	499	39.501	34.881	15.360	1.00	0.00
ATOM	721	CG	ASN	1	499	39.552	33.944	14.158	1.00	0.00
ATOM	722	OD1	ASN	1	499	40.038	34.322	13.089	1.00	0.00
ATOM	723	ND2	ASN	1	499	39.013	32.735	14.345	1.00	0.00
ATOM	724	H	ASN	1	499	41.300	32.545	16.643	1.00	0.00
ATOM	725	1HD2	ASN	1	499	39.053	32.064	13.607	1.00	0.00
ATOM	726	2HD2	ASN	1	499	38.577	32.508	15.215	1.00	0.00
ATOM	727	N	GLY	1	500	39.576	33.484	18.808	1.00	0.00
ATOM	728	CA	GLY	1	500	38.872	32.488	19.614	1.00	0.00
ATOM	729	C	GLY	1	500	39.227	32.400	21.090	1.00	0.00
ATOM	730	O	GLY	1	500	38.432	32.778	21.940	1.00	0.00
ATOM	731	H	GLY	1	500	40.282	34.058	19.231	1.00	0.00
ATOM	732	N	MET	1	501	40.429	31.845	21.360	1.00	0.00
ATOM	733	CA	MET	1	501	40.922	31.555	22.720	1.00	0.00
ATOM	734	C	MET	1	501	39.997	30.865	23.727	1.00	0.00

ATOM	735	O	MET	1	501	40.193	29.692	24.041	1.00	0.00
ATOM	736	CB	MET	1	501	41.639	32.755	23.351	1.00	0.00
ATOM	737	CG	MET	1	501	42.612	32.348	24.463	1.00	0.00
ATOM	738	SD	MET	1	501	43.389	33.750	25.283	1.00	0.00
ATOM	739	CE	MET	1	501	41.941	34.364	26.158	1.00	0.00
ATOM	740	H	MET	1	501	41.019	31.651	20.580	1.00	0.00
ATOM	741	N	VAL	1	502	39.000	31.604	24.240	1.00	0.00
ATOM	742	CA	VAL	1	502	37.990	30.868	24.993	1.00	0.00
ATOM	743	C	VAL	1	502	36.842	30.363	24.133	1.00	0.00
ATOM	744	O	VAL	1	502	36.289	29.293	24.375	1.00	0.00
ATOM	745	CB	VAL	1	502	37.492	31.642	26.230	1.00	0.00
ATOM	746	CG1	VAL	1	502	38.670	31.961	27.152	1.00	0.00
ATOM	747	CG2	VAL	1	502	36.660	32.888	25.906	1.00	0.00
ATOM	748	H	VAL	1	502	38.894	32.564	23.966	1.00	0.00
ATOM	749	N	ARG	1	503	36.511	31.181	23.130	1.00	0.00
ATOM	750	CA	ARG	1	503	35.560	30.742	22.119	1.00	0.00
ATOM	751	C	ARG	1	503	36.250	29.974	21.011	1.00	0.00
ATOM	752	O	ARG	1	503	37.450	29.706	21.045	1.00	0.00
ATOM	753	CB	ARG	1	503	34.785	31.946	21.581	1.00	0.00
ATOM	754	CG	ARG	1	503	33.651	32.375	22.513	1.00	0.00
ATOM	755	CD	ARG	1	503	32.249	31.999	22.012	1.00	0.00
ATOM	756	NE	ARG	1	503	32.045	30.554	21.856	1.00	0.00
ATOM	757	CZ	ARG	1	503	30.929	29.938	22.298	1.00	0.00
ATOM	758	NH1	ARG	1	503	30.743	28.655	22.023	1.00	0.00
ATOM	759	NH2	ARG	1	503	30.016	30.608	23.001	1.00	0.00
ATOM	760	H	ARG	1	503	37.035	32.018	22.980	1.00	0.00
ATOM	761	HE	ARG	1	503	32.700	30.031	21.293	1.00	0.00
ATOM	762	1HH1	ARG	1	503	29.942	28.132	22.303	1.00	0.00
ATOM	763	2HH1	ARG	1	503	31.462	28.169	21.495	1.00	0.00
ATOM	764	1HH2	ARG	1	503	29.198	30.142	23.340	1.00	0.00
ATOM	765	2HH2	ARG	1	503	30.135	31.580	23.206	1.00	0.00
ATOM	766	N	GLU	1	504	35.406	29.583	20.051	1.00	0.00
ATOM	767	CA	GLU	1	504	35.890	28.882	18.870	1.00	0.00
ATOM	768	C	GLU	1	504	36.237	29.908	17.803	1.00	0.00
ATOM	769	O	GLU	1	504	36.469	31.070	18.132	1.00	0.00
ATOM	770	CB	GLU	1	504	34.830	27.877	18.387	1.00	0.00
ATOM	771	CG	GLU	1	504	34.242	26.925	19.445	1.00	0.00
ATOM	772	CD	GLU	1	504	33.187	27.613	20.300	1.00	0.00
ATOM	773	OE1	GLU	1	504	33.185	27.455	21.510	1.00	0.00
ATOM	774	OE2	GLU	1	504	32.342	28.322	19.776	1.00	0.00
ATOM	775	H	GLU	1	504	34.459	29.896	20.064	1.00	0.00
ATOM	776	N	LEU	1	505	36.223	29.466	16.528	1.00	0.00
ATOM	777	CA	LEU	1	505	36.388	30.394	15.404	1.00	0.00
ATOM	778	C	LEU	1	505	35.285	31.441	15.301	1.00	0.00
ATOM	779	O	LEU	1	505	34.352	31.333	14.505	1.00	0.00
ATOM	780	CB	LEU	1	505	36.464	29.611	14.090	1.00	0.00
ATOM	781	CG	LEU	1	505	37.611	28.602	13.994	1.00	0.00
ATOM	782	CD1	LEU	1	505	37.354	27.567	12.899	1.00	0.00
ATOM	783	CD2	LEU	1	505	38.968	29.281	13.811	1.00	0.00
ATOM	784	H	LEU	1	505	36.120	28.498	16.343	1.00	0.00
ATOM	785	N	ILE	1	506	35.429	32.452	16.163	1.00	0.00
ATOM	786	CA	ILE	1	506	34.503	33.575	16.182	1.00	0.00
ATOM	787	C	ILE	1	506	35.132	34.672	15.342	1.00	0.00
ATOM	788	O	ILE	1	506	36.293	34.553	14.981	1.00	0.00
ATOM	789	CB	ILE	1	506	34.240	33.971	17.654	1.00	0.00
ATOM	790	CG1	ILE	1	506	33.018	34.878	17.845	1.00	0.00
ATOM	791	CG2	ILE	1	506	35.491	34.581	18.308	1.00	0.00
ATOM	792	CD1	ILE	1	506	32.701	35.170	19.313	1.00	0.00
ATOM	793	H	ILE	1	506	36.252	32.443	16.735	1.00	0.00
ATOM	794	N	ASP	1	507	34.351	35.708	15.033	1.00	0.00
ATOM	795	CA	ASP	1	507	34.816	36.858	14.249	1.00	0.00
ATOM	796	C	ASP	1	507	36.113	37.526	14.747	1.00	0.00
ATOM	797	O	ASP	1	507	37.209	37.327	14.221	1.00	0.00
ATOM	798	CB	ASP	1	507	33.592	37.776	14.228	1.00	0.00
ATOM	799	CG	ASP	1	507	33.701	38.921	13.260	1.00	0.00
ATOM	800	OD1	ASP	1	507	34.544	39.786	13.435	1.00	0.00
ATOM	801	OD2	ASP	1	507	32.884	38.995	12.355	1.00	0.00

ATOM	802	H	ASP	1	507	33.406	35.688	15.357	1.00	0.00
ATOM	803	N	ASN	1	508	35.905	38.287	15.846	1.00	0.00
ATOM	804	CA	ASN	1	508	36.941	38.950	16.636	1.00	0.00
ATOM	805	C	ASN	1	508	37.554	40.207	16.003	1.00	0.00
ATOM	806	O	ASN	1	508	37.442	40.490	14.816	1.00	0.00
ATOM	807	CB	ASN	1	508	37.942	37.894	17.148	1.00	0.00
ATOM	808	CG	ASN	1	508	38.984	38.483	18.067	1.00	0.00
ATOM	809	OD1	ASN	1	508	40.075	38.841	17.629	1.00	0.00
ATOM	810	ND2	ASN	1	508	38.612	38.587	19.342	1.00	0.00
ATOM	811	H	ASN	1	508	34.972	38.528	16.098	1.00	0.00
ATOM	812	1HD2	ASN	1	508	39.255	38.836	20.065	1.00	0.00
ATOM	813	2HD2	ASN	1	508	37.657	38.470	19.612	1.00	0.00
ATOM	814	N	LYS	1	509	38.203	40.966	16.887	1.00	0.00
ATOM	815	CA	LYS	1	509	38.920	42.208	16.647	1.00	0.00
ATOM	816	C	LYS	1	509	38.126	43.497	16.680	1.00	0.00
ATOM	817	O	LYS	1	509	38.149	44.300	15.757	1.00	0.00
ATOM	818	CB	LYS	1	509	39.976	42.133	15.532	1.00	0.00
ATOM	819	CG	LYS	1	509	41.200	42.968	15.927	1.00	0.00
ATOM	820	CD	LYS	1	509	41.698	42.604	17.332	1.00	0.00
ATOM	821	CE	LYS	1	509	41.887	43.844	18.206	1.00	0.00
ATOM	822	NZ	LYS	1	509	41.436	43.564	19.565	1.00	0.00
ATOM	823	H	LYS	1	509	38.111	40.738	17.856	1.00	0.00
ATOM	824	1HZ	LYS	1	509	42.164	43.009	20.053	1.00	0.00
ATOM	825	2HZ	LYS	1	509	41.337	44.473	20.050	1.00	0.00
ATOM	826	3HZ	LYS	1	509	40.546	43.027	19.604	1.00	0.00
ATOM	827	N	ALA	1	510	37.496	43.688	17.844	1.00	0.00
ATOM	828	CA	ALA	1	510	36.833	44.929	18.247	1.00	0.00
ATOM	829	C	ALA	1	510	37.482	46.239	17.852	1.00	0.00
ATOM	830	O	ALA	1	510	36.809	47.226	17.588	1.00	0.00
ATOM	831	CB	ALA	1	510	36.605	44.978	19.756	1.00	0.00
ATOM	832	H	ALA	1	510	37.421	42.899	18.451	1.00	0.00
ATOM	833	N	ASP	1	511	38.811	46.233	17.760	1.00	0.00
ATOM	834	CA	ASP	1	511	39.507	47.459	17.365	1.00	0.00
ATOM	835	C	ASP	1	511	39.701	47.501	15.852	1.00	0.00
ATOM	836	O	ASP	1	511	39.758	46.430	15.256	1.00	0.00
ATOM	837	CB	ASP	1	511	40.784	47.535	18.213	1.00	0.00
ATOM	838	CG	ASP	1	511	40.400	47.266	19.666	1.00	0.00
ATOM	839	OD1	ASP	1	511	39.730	48.080	20.276	1.00	0.00
ATOM	840	OD2	ASP	1	511	40.713	46.204	20.184	1.00	0.00
ATOM	841	H	ASP	1	511	39.298	45.425	18.087	1.00	0.00
ATOM	842	N	LEU	1	512	39.706	48.690	15.207	1.00	0.00
ATOM	843	CA	LEU	1	512	39.852	50.003	15.835	1.00	0.00
ATOM	844	C	LEU	1	512	38.524	50.631	16.191	1.00	0.00
ATOM	845	O	LEU	1	512	37.887	51.247	15.325	1.00	0.00
ATOM	846	CB	LEU	1	512	40.587	50.903	14.846	1.00	0.00
ATOM	847	CG	LEU	1	512	41.623	51.837	15.453	1.00	0.00
ATOM	848	CD1	LEU	1	512	42.709	51.060	16.170	1.00	0.00
ATOM	849	CD2	LEU	1	512	42.250	52.748	14.407	1.00	0.00
ATOM	850	H	LEU	1	512	39.438	48.632	14.248	1.00	0.00
ATOM	851	N	ALA	1	513	38.142	50.407	17.443	1.00	0.00
ATOM	852	CA	ALA	1	513	36.827	50.802	17.922	1.00	0.00
ATOM	853	C	ALA	1	513	36.726	52.265	18.267	1.00	0.00
ATOM	854	O	ALA	1	513	37.592	52.788	18.966	1.00	0.00
ATOM	855	CB	ALA	1	513	36.538	50.043	19.219	1.00	0.00
ATOM	856	H	ALA	1	513	38.778	49.963	18.071	1.00	0.00
ATOM	857	N	VAL	1	514	35.619	52.913	17.879	1.00	0.00
ATOM	858	CA	VAL	1	514	35.372	54.140	18.634	1.00	0.00
ATOM	859	C	VAL	1	514	34.445	53.965	19.835	1.00	0.00
ATOM	860	O	VAL	1	514	34.855	53.346	20.814	1.00	0.00
ATOM	861	CB	VAL	1	514	35.045	55.351	17.756	1.00	0.00
ATOM	862	CG1	VAL	1	514	35.399	56.636	18.515	1.00	0.00
ATOM	863	CG2	VAL	1	514	35.800	55.303	16.428	1.00	0.00
ATOM	864	H	VAL	1	514	35.025	52.532	17.168	1.00	0.00
ATOM	865	N	ALA	1	515	33.211	54.521	19.793	1.00	0.00
ATOM	866	CA	ALA	1	515	32.345	54.521	20.991	1.00	0.00
ATOM	867	C	ALA	1	515	33.015	54.962	22.284	1.00	0.00
ATOM	868	O	ALA	1	515	33.467	54.141	23.089	1.00	0.00

ATOM	869	CB	ALA	1	515	31.749	53.148	21.254	1.00	0.00
ATOM	870	H	ALA	1	515	32.845	54.928	18.954	1.00	0.00
ATOM	871	N	PRO	1	516	33.115	56.302	22.424	1.00	0.00
ATOM	872	CA	PRO	1	516	34.051	56.917	23.374	1.00	0.00
ATOM	873	C	PRO	1	516	34.288	56.241	24.720	1.00	0.00
ATOM	874	O	PRO	1	516	33.543	56.474	25.680	1.00	0.00
ATOM	875	CB	PRO	1	516	33.528	58.351	23.444	1.00	0.00
ATOM	876	CG	PRO	1	516	32.978	58.626	22.045	1.00	0.00
ATOM	877	CD	PRO	1	516	32.368	57.289	21.649	1.00	0.00
ATOM	878	N	LEU	1	517	35.386	55.429	24.674	1.00	0.00
ATOM	879	CA	LEU	1	517	35.982	54.630	25.757	1.00	0.00
ATOM	880	C	LEU	1	517	36.180	55.353	27.080	1.00	0.00
ATOM	881	O	LEU	1	517	35.242	56.016	27.513	1.00	0.00
ATOM	882	CB	LEU	1	517	37.285	53.964	25.296	1.00	0.00
ATOM	883	CG	LEU	1	517	37.266	53.197	23.975	1.00	0.00
ATOM	884	CD1	LEU	1	517	38.648	52.612	23.717	1.00	0.00
ATOM	885	CD2	LEU	1	517	36.172	52.134	23.872	1.00	0.00
ATOM	886	H	LEU	1	517	35.840	55.344	23.790	1.00	0.00
ATOM	887	N	ALA	1	518	37.339	55.204	27.760	1.00	0.00
ATOM	888	CA	ALA	1	518	37.367	55.922	29.035	1.00	0.00
ATOM	889	C	ALA	1	518	38.692	56.480	29.490	1.00	0.00
ATOM	890	O	ALA	1	518	39.675	55.759	29.661	1.00	0.00
ATOM	891	CB	ALA	1	518	36.790	55.097	30.188	1.00	0.00
ATOM	892	H	ALA	1	518	38.165	54.773	27.410	1.00	0.00
ATOM	893	N	ILE	1	519	38.679	57.804	29.738	1.00	0.00
ATOM	894	CA	ILE	1	519	39.860	58.449	30.319	1.00	0.00
ATOM	895	C	ILE	1	519	40.006	58.165	31.815	1.00	0.00
ATOM	896	O	ILE	1	519	39.660	58.921	32.728	1.00	0.00
ATOM	897	CB	ILE	1	519	39.900	59.943	29.930	1.00	0.00
ATOM	898	CG1	ILE	1	519	41.158	60.648	30.449	1.00	0.00
ATOM	899	CG2	ILE	1	519	38.623	60.683	30.350	1.00	0.00
ATOM	900	CD1	ILE	1	519	41.291	62.087	29.949	1.00	0.00
ATOM	901	H	ILE	1	519	37.799	58.275	29.674	1.00	0.00
ATOM	902	N	THR	1	520	40.493	56.941	32.021	1.00	0.00
ATOM	903	CA	THR	1	520	40.527	56.340	33.352	1.00	0.00
ATOM	904	C	THR	1	520	41.418	55.132	33.262	1.00	0.00
ATOM	905	O	THR	1	520	41.121	54.204	32.516	1.00	0.00
ATOM	906	CB	THR	1	520	39.135	55.888	33.836	1.00	0.00
ATOM	907	OG1	THR	1	520	38.158	56.932	33.707	1.00	0.00
ATOM	908	CG2	THR	1	520	39.170	55.412	35.290	1.00	0.00
ATOM	909	H	THR	1	520	40.827	56.428	31.227	1.00	0.00
ATOM	910	HG1	THR	1	520	38.218	57.221	32.798	1.00	0.00
ATOM	911	N	TYR	1	521	42.510	55.194	34.034	1.00	0.00
ATOM	912	CA	TYR	1	521	43.519	54.136	34.011	1.00	0.00
ATOM	913	C	TYR	1	521	42.972	52.717	34.022	1.00	0.00
ATOM	914	O	TYR	1	521	43.315	51.876	33.204	1.00	0.00
ATOM	915	CB	TYR	1	521	44.529	54.365	35.142	1.00	0.00
ATOM	916	CG	TYR	1	521	45.811	53.606	34.883	1.00	0.00
ATOM	917	CD1	TYR	1	521	46.078	52.440	35.628	1.00	0.00
ATOM	918	CD2	TYR	1	521	46.707	54.088	33.906	1.00	0.00
ATOM	919	CE1	TYR	1	521	47.276	51.744	35.397	1.00	0.00
ATOM	920	CE2	TYR	1	521	47.900	53.388	33.668	1.00	0.00
ATOM	921	CZ	TYR	1	521	48.172	52.229	34.422	1.00	0.00
ATOM	922	OH	TYR	1	521	49.355	51.548	34.204	1.00	0.00
ATOM	923	H	TYR	1	521	42.666	56.063	34.498	1.00	0.00
ATOM	924	HH	TYR	1	521	49.680	51.260	35.053	1.00	0.00
ATOM	925	N	VAL	1	522	42.044	52.495	34.967	1.00	0.00
ATOM	926	CA	VAL	1	522	41.474	51.148	35.058	1.00	0.00
ATOM	927	C	VAL	1	522	40.750	50.610	33.825	1.00	0.00
ATOM	928	O	VAL	1	522	40.532	49.411	33.710	1.00	0.00
ATOM	929	CB	VAL	1	522	40.609	50.988	36.318	1.00	0.00
ATOM	930	CG1	VAL	1	522	41.435	51.280	37.573	1.00	0.00
ATOM	931	CG2	VAL	1	522	39.321	51.814	36.264	1.00	0.00
ATOM	932	H	VAL	1	522	41.749	53.248	35.551	1.00	0.00
ATOM	933	N	ARG	1	523	40.407	51.525	32.903	1.00	0.00
ATOM	934	CA	ARG	1	523	39.845	51.140	31.601	1.00	0.00
ATOM	935	C	ARG	1	523	40.841	51.230	30.448	1.00	0.00

ATOM	936	O	ARG	1	523	40.931	50.357	29.588	1.00	0.00
ATOM	937	CB	ARG	1	523	38.639	52.033	31.310	1.00	0.00
ATOM	938	CG	ARG	1	523	38.104	51.998	29.873	1.00	0.00
ATOM	939	CD	ARG	1	523	37.275	50.777	29.514	1.00	0.00
ATOM	940	NE	ARG	1	523	36.691	50.922	28.179	1.00	0.00
ATOM	941	CZ	ARG	1	523	35.413	51.324	27.987	1.00	0.00
ATOM	942	NH1	ARG	1	523	34.864	51.131	26.797	1.00	0.00
ATOM	943	NH2	ARG	1	523	34.701	51.896	28.957	1.00	0.00
ATOM	944	H	ARG	1	523	40.625	52.479	33.105	1.00	0.00
ATOM	945	HE	ARG	1	523	37.217	50.624	27.372	1.00	0.00
ATOM	946	1HH1	ARG	1	523	33.895	51.340	26.672	1.00	0.00
ATOM	947	2HH1	ARG	1	523	35.395	50.754	26.024	1.00	0.00
ATOM	948	1HH2	ARG	1	523	33.735	52.119	28.818	1.00	0.00
ATOM	949	2HH2	ARG	1	523	35.122	52.139	29.832	1.00	0.00
ATOM	950	N	GLU	1	524	41.578	52.346	30.452	1.00	0.00
ATOM	951	CA	GLU	1	524	42.519	52.620	29.376	1.00	0.00
ATOM	952	C	GLU	1	524	43.662	51.627	29.354	1.00	0.00
ATOM	953	O	GLU	1	524	44.114	51.170	28.304	1.00	0.00
ATOM	954	CB	GLU	1	524	42.926	54.096	29.474	1.00	0.00
ATOM	955	CG	GLU	1	524	44.347	54.501	29.057	1.00	0.00
ATOM	956	CD	GLU	1	524	45.367	54.129	30.118	1.00	0.00
ATOM	957	OE1	GLU	1	524	44.997	53.899	31.263	1.00	0.00
ATOM	958	OE2	GLU	1	524	46.546	54.059	29.801	1.00	0.00
ATOM	959	H	GLU	1	524	41.509	53.004	31.195	1.00	0.00
ATOM	960	N	LYS	1	525	44.065	51.224	30.568	1.00	0.00
ATOM	961	CA	LYS	1	525	45.011	50.119	30.602	1.00	0.00
ATOM	962	C	LYS	1	525	44.415	48.724	30.650	1.00	0.00
ATOM	963	O	LYS	1	525	45.097	47.724	30.858	1.00	0.00
ATOM	964	CB	LYS	1	525	46.086	50.355	31.659	1.00	0.00
ATOM	965	CG	LYS	1	525	47.519	50.222	31.121	1.00	0.00
ATOM	966	CD	LYS	1	525	47.961	51.280	30.093	1.00	0.00
ATOM	967	CE	LYS	1	525	47.645	50.993	28.616	1.00	0.00
ATOM	968	NZ	LYS	1	525	46.705	51.957	28.016	1.00	0.00
ATOM	969	H	LYS	1	525	43.748	51.666	31.405	1.00	0.00
ATOM	970	1HZ	LYS	1	525	46.669	52.862	28.525	1.00	0.00
ATOM	971	2HZ	LYS	1	525	47.019	52.159	27.045	1.00	0.00
ATOM	972	3HZ	LYS	1	525	45.743	51.571	27.912	1.00	0.00
ATOM	973	N	VAL	1	526	43.103	48.686	30.369	1.00	0.00
ATOM	974	CA	VAL	1	526	42.623	47.462	29.738	1.00	0.00
ATOM	975	C	VAL	1	526	42.767	47.608	28.233	1.00	0.00
ATOM	976	O	VAL	1	526	43.608	46.962	27.614	1.00	0.00
ATOM	977	CB	VAL	1	526	41.181	47.124	30.153	1.00	0.00
ATOM	978	CG1	VAL	1	526	40.667	45.843	29.485	1.00	0.00
ATOM	979	CG2	VAL	1	526	41.078	47.018	31.674	1.00	0.00
ATOM	980	H	VAL	1	526	42.552	49.511	30.284	1.00	0.00
ATOM	981	N	ILE	1	527	41.943	48.508	27.675	1.00	0.00
ATOM	982	CA	ILE	1	527	42.036	48.762	26.236	1.00	0.00
ATOM	983	C	ILE	1	527	42.563	50.147	25.910	1.00	0.00
ATOM	984	O	ILE	1	527	42.088	51.164	26.426	1.00	0.00
ATOM	985	CB	ILE	1	527	40.701	48.489	25.523	1.00	0.00
ATOM	986	CG1	ILE	1	527	39.528	49.266	26.133	1.00	0.00
ATOM	987	CG2	ILE	1	527	40.421	46.983	25.529	1.00	0.00
ATOM	988	CD1	ILE	1	527	38.219	49.052	25.370	1.00	0.00
ATOM	989	H	ILE	1	527	41.358	49.022	28.299	1.00	0.00
ATOM	990	N	ASP	1	528	43.593	50.135	25.050	1.00	0.00
ATOM	991	CA	ASP	1	528	44.293	51.389	24.761	1.00	0.00
ATOM	992	C	ASP	1	528	43.502	52.440	24.014	1.00	0.00
ATOM	993	O	ASP	1	528	42.364	52.206	23.626	1.00	0.00
ATOM	994	CB	ASP	1	528	45.619	51.118	24.083	1.00	0.00
ATOM	995	CG	ASP	1	528	46.679	51.004	25.138	1.00	0.00
ATOM	996	OD1	ASP	1	528	47.396	51.971	25.331	1.00	0.00
ATOM	997	OD2	ASP	1	528	46.782	49.975	25.793	1.00	0.00
ATOM	998	H	ASP	1	528	43.912	49.263	24.675	1.00	0.00
ATOM	999	N	PHE	1	529	44.096	53.635	23.925	1.00	0.00
ATOM	1000	CA	PHE	1	529	43.208	54.794	23.919	1.00	0.00
ATOM	1001	C	PHE	1	529	43.396	55.695	22.718	1.00	0.00
ATOM	1002	O	PHE	1	529	44.401	55.608	22.033	1.00	0.00

ATOM	1003	CB	PHE	1	529	43.422	55.553	25.234	1.00	0.00
ATOM	1004	CG	PHE	1	529	44.839	56.073	25.389	1.00	0.00
ATOM	1005	CD1	PHE	1	529	45.136	57.396	24.993	1.00	0.00
ATOM	1006	CD2	PHE	1	529	45.841	55.238	25.933	1.00	0.00
ATOM	1007	CE1	PHE	1	529	46.446	57.890	25.138	1.00	0.00
ATOM	1008	CE2	PHE	1	529	47.152	55.727	26.080	1.00	0.00
ATOM	1009	CZ	PHE	1	529	47.441	57.049	25.680	1.00	0.00
ATOM	1010	H	PHE	1	529	45.084	53.752	24.023	1.00	0.00
ATOM	1011	N	SER	1	530	42.449	56.610	22.491	1.00	0.00
ATOM	1012	CA	SER	1	530	42.784	57.761	21.641	1.00	0.00
ATOM	1013	C	SER	1	530	43.103	58.885	22.593	1.00	0.00
ATOM	1014	O	SER	1	530	42.601	58.853	23.715	1.00	0.00
ATOM	1015	CB	SER	1	530	41.578	58.152	20.779	1.00	0.00
ATOM	1016	OG	SER	1	530	41.862	59.210	19.849	1.00	0.00
ATOM	1017	H	SER	1	530	41.682	56.626	23.125	1.00	0.00
ATOM	1018	HG	SER	1	530	42.572	58.900	19.281	1.00	0.00
ATOM	1019	N	LYS	1	531	43.906	59.849	22.145	1.00	0.00
ATOM	1020	CA	LYS	1	531	44.011	61.088	22.924	1.00	0.00
ATOM	1021	C	LYS	1	531	42.700	61.868	22.786	1.00	0.00
ATOM	1022	O	LYS	1	531	42.095	61.787	21.717	1.00	0.00
ATOM	1023	CB	LYS	1	531	45.239	61.854	22.416	1.00	0.00
ATOM	1024	CG	LYS	1	531	45.803	62.837	23.438	1.00	0.00
ATOM	1025	CD	LYS	1	531	46.367	62.166	24.693	1.00	0.00
ATOM	1026	CE	LYS	1	531	46.280	63.048	25.946	1.00	0.00
ATOM	1027	NZ	LYS	1	531	46.653	64.430	25.652	1.00	0.00
ATOM	1028	H	LYS	1	531	44.227	59.745	21.205	1.00	0.00
ATOM	1029	1HZ	LYS	1	531	47.043	64.875	26.490	1.00	0.00
ATOM	1030	2HZ	LYS	1	531	47.400	64.466	24.933	1.00	0.00
ATOM	1031	3HZ	LYS	1	531	45.840	65.026	25.382	1.00	0.00
ATOM	1032	N	PRO	1	532	42.209	62.519	23.883	1.00	0.00
ATOM	1033	CA	PRO	1	532	40.922	63.232	23.893	1.00	0.00
ATOM	1034	C	PRO	1	532	40.530	64.180	22.772	1.00	0.00
ATOM	1035	O	PRO	1	532	40.362	65.386	22.930	1.00	0.00
ATOM	1036	CB	PRO	1	532	40.881	63.894	25.272	1.00	0.00
ATOM	1037	CG	PRO	1	532	41.659	62.932	26.155	1.00	0.00
ATOM	1038	CD	PRO	1	532	42.775	62.481	25.225	1.00	0.00
ATOM	1039	N	PHE	1	533	40.224	63.550	21.639	1.00	0.00
ATOM	1040	CA	PHE	1	533	39.367	64.248	20.694	1.00	0.00
ATOM	1041	C	PHE	1	533	37.905	63.950	20.975	1.00	0.00
ATOM	1042	O	PHE	1	533	36.999	64.214	20.179	1.00	0.00
ATOM	1043	CB	PHE	1	533	39.748	63.884	19.257	1.00	0.00
ATOM	1044	CG	PHE	1	533	41.087	64.492	18.904	1.00	0.00
ATOM	1045	CD1	PHE	1	533	41.122	65.695	18.166	1.00	0.00
ATOM	1046	CD2	PHE	1	533	42.280	63.856	19.317	1.00	0.00
ATOM	1047	CE1	PHE	1	533	42.363	66.276	17.846	1.00	0.00
ATOM	1048	CE2	PHE	1	533	43.522	64.435	19.000	1.00	0.00
ATOM	1049	CZ	PHE	1	533	43.549	65.640	18.270	1.00	0.00
ATOM	1050	H	PHE	1	533	40.363	62.563	21.573	1.00	0.00
ATOM	1051	N	MET	1	534	37.663	63.363	22.163	1.00	0.00
ATOM	1052	CA	MET	1	534	36.268	63.187	22.534	1.00	0.00
ATOM	1053	C	MET	1	534	35.792	64.164	23.582	1.00	0.00
ATOM	1054	O	MET	1	534	34.653	64.613	23.509	1.00	0.00
ATOM	1055	CB	MET	1	534	35.965	61.747	22.958	1.00	0.00
ATOM	1056	CG	MET	1	534	36.155	60.730	21.830	1.00	0.00
ATOM	1057	SD	MET	1	534	37.867	60.539	21.309	1.00	0.00
ATOM	1058	CE	MET	1	534	37.566	59.773	19.713	1.00	0.00
ATOM	1059	H	MET	1	534	38.424	63.128	22.766	1.00	0.00
ATOM	1060	N	THR	1	535	36.692	64.448	24.544	1.00	0.00
ATOM	1061	CA	THR	1	535	36.344	64.966	25.871	1.00	0.00
ATOM	1062	C	THR	1	535	34.979	65.610	26.079	1.00	0.00
ATOM	1063	O	THR	1	535	34.688	66.738	25.667	1.00	0.00
ATOM	1064	CB	THR	1	535	37.518	65.795	26.443	1.00	0.00
ATOM	1065	OG1	THR	1	535	37.350	66.086	27.844	1.00	0.00
ATOM	1066	CG2	THR	1	535	37.814	67.063	25.635	1.00	0.00
ATOM	1067	H	THR	1	535	37.624	64.123	24.427	1.00	0.00
ATOM	1068	HG1	THR	1	535	38.166	66.524	28.096	1.00	0.00
ATOM	1069	N	LEU	1	536	34.135	64.832	26.749	1.00	0.00

ATOM	1070	CA	LEU	1	536	32.983	65.429	27.401	1.00	0.00
ATOM	1071	C	LEU	1	536	33.266	65.466	28.879	1.00	0.00
ATOM	1072	O	LEU	1	536	34.006	64.639	29.409	1.00	0.00
ATOM	1073	CB	LEU	1	536	31.690	64.641	27.156	1.00	0.00
ATOM	1074	CG	LEU	1	536	31.091	64.783	25.752	1.00	0.00
ATOM	1075	CD1	LEU	1	536	31.083	66.241	25.288	1.00	0.00
ATOM	1076	CD2	LEU	1	536	31.724	63.836	24.732	1.00	0.00
ATOM	1077	H	LEU	1	536	34.394	63.899	26.978	1.00	0.00
ATOM	1078	N	GLY	1	537	32.658	66.449	29.522	1.00	0.00
ATOM	1079	CA	GLY	1	537	32.802	66.432	30.965	1.00	0.00
ATOM	1080	C	GLY	1	537	31.683	65.648	31.604	1.00	0.00
ATOM	1081	O	GLY	1	537	30.673	65.304	30.984	1.00	0.00
ATOM	1082	H	GLY	1	537	31.992	67.030	29.069	1.00	0.00
ATOM	1083	N	ILE	1	538	31.867	65.422	32.919	1.00	0.00
ATOM	1084	CA	ILE	1	538	30.642	65.108	33.643	1.00	0.00
ATOM	1085	C	ILE	1	538	29.951	66.406	33.941	1.00	0.00
ATOM	1086	O	ILE	1	538	30.570	67.452	34.173	1.00	0.00
ATOM	1087	CB	ILE	1	538	30.857	64.257	34.907	1.00	0.00
ATOM	1088	CG1	ILE	1	538	29.616	63.426	35.235	1.00	0.00
ATOM	1089	CG2	ILE	1	538	31.326	65.054	36.136	1.00	0.00
ATOM	1090	CD1	ILE	1	538	29.906	62.330	36.260	1.00	0.00
ATOM	1091	H	ILE	1	538	32.650	65.836	33.382	1.00	0.00
ATOM	1092	N	SER	1	539	28.639	66.329	33.867	1.00	0.00
ATOM	1093	CA	SER	1	539	27.982	67.608	33.933	1.00	0.00
ATOM	1094	C	SER	1	539	26.999	67.638	35.069	1.00	0.00
ATOM	1095	O	SER	1	539	26.137	66.781	35.265	1.00	0.00
ATOM	1096	CB	SER	1	539	27.472	67.947	32.545	1.00	0.00
ATOM	1097	OG	SER	1	539	28.463	67.531	31.578	1.00	0.00
ATOM	1098	H	SER	1	539	28.189	65.471	33.617	1.00	0.00
ATOM	1099	HG	SER	1	539	28.566	66.589	31.779	1.00	0.00
ATOM	1100	N	ILE	1	540	27.304	68.614	35.907	1.00	0.00
ATOM	1101	CA	ILE	1	540	26.815	68.569	37.276	1.00	0.00
ATOM	1102	C	ILE	1	540	25.624	69.502	37.330	1.00	0.00
ATOM	1103	O	ILE	1	540	25.406	70.250	36.376	1.00	0.00
ATOM	1104	CB	ILE	1	540	28.004	68.957	38.188	1.00	0.00
ATOM	1105	CG1	ILE	1	540	29.222	68.119	37.771	1.00	0.00
ATOM	1106	CG2	ILE	1	540	27.736	68.727	39.682	1.00	0.00
ATOM	1107	CD1	ILE	1	540	30.547	68.528	38.406	1.00	0.00
ATOM	1108	H	ILE	1	540	27.847	69.372	35.549	1.00	0.00
ATOM	1109	N	LEU	1	541	24.875	69.463	38.430	1.00	0.00
ATOM	1110	CA	LEU	1	541	23.722	70.350	38.589	1.00	0.00
ATOM	1111	C	LEU	1	541	22.748	70.274	37.438	1.00	0.00
ATOM	1112	O	LEU	1	541	22.285	71.263	36.872	1.00	0.00
ATOM	1113	CB	LEU	1	541	24.068	71.826	38.857	1.00	0.00
ATOM	1114	CG	LEU	1	541	25.111	72.146	39.931	1.00	0.00
ATOM	1115	CD1	LEU	1	541	25.018	71.244	41.162	1.00	0.00
ATOM	1116	CD2	LEU	1	541	26.516	72.212	39.344	1.00	0.00
ATOM	1117	H	LEU	1	541	25.073	68.726	39.067	1.00	0.00
ATOM	1118	N	TYR	1	542	22.420	69.020	37.110	1.00	0.00
ATOM	1119	CA	TYR	1	542	21.221	68.906	36.285	1.00	0.00
ATOM	1120	C	TYR	1	542	19.997	69.016	37.156	1.00	0.00
ATOM	1121	O	TYR	1	542	19.539	68.079	37.810	1.00	0.00
ATOM	1122	CB	TYR	1	542	21.269	67.694	35.341	1.00	0.00
ATOM	1123	CG	TYR	1	542	22.240	68.044	34.234	1.00	0.00
ATOM	1124	CD1	TYR	1	542	21.761	68.217	32.921	1.00	0.00
ATOM	1125	CD2	TYR	1	542	23.591	68.266	34.554	1.00	0.00
ATOM	1126	CE1	TYR	1	542	22.608	68.782	31.951	1.00	0.00
ATOM	1127	CE2	TYR	1	542	24.430	68.842	33.599	1.00	0.00
ATOM	1128	CZ	TYR	1	542	23.918	69.135	32.327	1.00	0.00
ATOM	1129	OH	TYR	1	542	24.731	69.808	31.435	1.00	0.00
ATOM	1130	H	TYR	1	542	22.957	68.275	37.510	1.00	0.00
ATOM	1131	HH	TYR	1	542	25.227	70.448	31.951	1.00	0.00
ATOM	1132	N	ARG	1	543	19.578	70.286	37.210	1.00	0.00
ATOM	1133	CA	ARG	1	543	18.724	70.753	38.288	1.00	0.00
ATOM	1134	C	ARG	1	543	17.730	71.831	37.825	1.00	0.00
ATOM	1135	O	ARG	1	543	16.876	71.559	36.980	1.00	0.00
ATOM	1136	CB	ARG	1	543	19.662	71.160	39.421	1.00	0.00

ATOM	1137	CG	ARG	1	543	19.219	70.805	40.834	1.00	0.00
ATOM	1138	CD	ARG	1	543	20.183	71.415	41.853	1.00	0.00
ATOM	1139	NE	ARG	1	543	20.189	72.854	41.622	1.00	0.00
ATOM	1140	CZ	ARG	1	543	19.158	73.567	42.118	1.00	0.00
ATOM	1141	NH1	ARG	1	543	18.756	74.643	41.456	1.00	0.00
ATOM	1142	NH2	ARG	1	543	18.554	73.153	43.227	1.00	0.00
ATOM	1143	H	ARG	1	543	20.075	70.951	36.654	1.00	0.00
ATOM	1144	HE	ARG	1	543	20.709	73.155	40.812	1.00	0.00
ATOM	1145	1HH1	ARG	1	543	18.100	75.303	41.819	1.00	0.00
ATOM	1146	2HH1	ARG	1	543	19.116	74.796	40.526	1.00	0.00
ATOM	1147	1HH2	ARG	1	543	17.690	73.523	43.577	1.00	0.00
ATOM	1148	2HH2	ARG	1	543	18.931	72.398	43.762	1.00	0.00
ATOM	1149	N	LYS	1	544	17.809	73.058	38.398	1.00	0.00
ATOM	1150	CA	LYS	1	544	16.969	74.161	37.889	1.00	0.00
ATOM	1151	C	LYS	1	544	17.595	75.562	37.999	1.00	0.00
ATOM	1152	O	LYS	1	544	17.936	76.058	39.076	1.00	0.00
ATOM	1153	CB	LYS	1	544	15.549	74.173	38.491	1.00	0.00
ATOM	1154	CG	LYS	1	544	14.550	73.281	37.734	1.00	0.00
ATOM	1155	CD	LYS	1	544	14.424	73.661	36.251	1.00	0.00
ATOM	1156	CE	LYS	1	544	13.864	72.560	35.339	1.00	0.00
ATOM	1157	NZ	LYS	1	544	14.812	71.451	35.222	1.00	0.00
ATOM	1158	H	LYS	1	544	18.591	73.318	38.972	1.00	0.00
ATOM	1159	1HZ	LYS	1	544	15.712	71.621	35.714	1.00	0.00
ATOM	1160	2HZ	LYS	1	544	14.379	70.596	35.625	1.00	0.00
ATOM	1161	3HZ	LYS	1	544	14.992	71.196	34.231	1.00	0.00
ATOM	1162	N	PRO	1	545	17.742	76.210	36.807	1.00	0.00
ATOM	1163	CA	PRO	1	545	18.117	77.638	36.764	1.00	0.00
ATOM	1164	C	PRO	1	545	16.943	78.506	37.222	1.00	0.00
ATOM	1165	O	PRO	1	545	16.074	77.996	37.928	1.00	0.00
ATOM	1166	CB	PRO	1	545	18.505	77.814	35.290	1.00	0.00
ATOM	1167	CG	PRO	1	545	17.611	76.836	34.532	1.00	0.00
ATOM	1168	CD	PRO	1	545	17.550	75.642	35.475	1.00	0.00
ATOM	1169	N	ASN	1	546	16.924	79.787	36.814	1.00	0.00
ATOM	1170	CA	ASN	1	546	15.784	80.624	37.213	1.00	0.00
ATOM	1171	C	ASN	1	546	15.605	81.800	36.261	1.00	0.00
ATOM	1172	O	ASN	1	546	16.443	82.018	35.394	1.00	0.00
ATOM	1173	CB	ASN	1	546	15.945	81.086	38.675	1.00	0.00
ATOM	1174	CG	ASN	1	546	14.609	81.544	39.227	1.00	0.00
ATOM	1175	OD1	ASN	1	546	13.546	81.250	38.694	1.00	0.00
ATOM	1176	ND2	ASN	1	546	14.682	82.354	40.285	1.00	0.00
ATOM	1177	H	ASN	1	546	17.703	80.152	36.302	1.00	0.00
ATOM	1178	1HD2	ASN	1	546	13.838	82.720	40.678	1.00	0.00
ATOM	1179	2HD2	ASN	1	546	15.560	82.630	40.674	1.00	0.00
ATOM	1180	N	GLY	1	547	14.510	82.562	36.429	1.00	0.00
ATOM	1181	CA	GLY	1	547	14.372	83.804	35.670	1.00	0.00
ATOM	1182	C	GLY	1	547	15.218	84.921	36.251	1.00	0.00
ATOM	1183	O	GLY	1	547	14.741	85.841	36.914	1.00	0.00
ATOM	1184	H	GLY	1	547	13.842	82.337	37.137	1.00	0.00
ATOM	1185	N	THR	1	548	16.507	84.756	35.977	1.00	0.00
ATOM	1186	CA	THR	1	548	17.535	85.654	36.464	1.00	0.00
ATOM	1187	C	THR	1	548	18.697	85.468	35.515	1.00	0.00
ATOM	1188	O	THR	1	548	18.884	84.374	34.982	1.00	0.00
ATOM	1189	CB	THR	1	548	17.878	85.310	37.933	1.00	0.00
ATOM	1190	OG1	THR	1	548	18.666	86.333	38.558	1.00	0.00
ATOM	1191	CG2	THR	1	548	18.519	83.929	38.121	1.00	0.00
ATOM	1192	H	THR	1	548	16.804	84.002	35.392	1.00	0.00
ATOM	1193	HG1	THR	1	548	19.565	86.036	38.441	1.00	0.00
ATOM	1194	N	ASN	1	549	19.420	86.581	35.312	1.00	0.00
ATOM	1195	CA	ASN	1	549	20.592	86.651	34.427	1.00	0.00
ATOM	1196	C	ASN	1	549	20.634	85.770	33.181	1.00	0.00
ATOM	1197	O	ASN	1	549	20.936	84.584	33.226	1.00	0.00
ATOM	1198	CB	ASN	1	549	21.889	86.500	35.221	1.00	0.00
ATOM	1199	CG	ASN	1	549	22.961	87.289	34.500	1.00	0.00
ATOM	1200	OD1	ASN	1	549	22.887	88.504	34.382	1.00	0.00
ATOM	1201	ND2	ASN	1	549	23.958	86.559	34.004	1.00	0.00
ATOM	1202	H	ASN	1	549	19.148	87.393	35.826	1.00	0.00
ATOM	1203	1HD2	ASN	1	549	24.674	87.020	33.479	1.00	0.00

ATOM	1204	2HD2	ASN	1	549	23.944	85.566	34.151	1.00	0.00
ATOM	1205	N	PRO	1	550	20.326	86.400	32.030	1.00	0.00
ATOM	1206	CA	PRO	1	550	20.393	85.645	30.774	1.00	0.00
ATOM	1207	C	PRO	1	550	21.822	85.253	30.413	1.00	0.00
ATOM	1208	O	PRO	1	550	22.788	85.652	31.055	1.00	0.00
ATOM	1209	CB	PRO	1	550	19.752	86.627	29.785	1.00	0.00
ATOM	1210	CG	PRO	1	550	20.050	88.016	30.352	1.00	0.00
ATOM	1211	CD	PRO	1	550	19.943	87.795	31.856	1.00	0.00
ATOM	1212	N	GLY	1	551	21.912	84.448	29.343	1.00	0.00
ATOM	1213	CA	GLY	1	551	23.229	84.216	28.765	1.00	0.00
ATOM	1214	C	GLY	1	551	23.394	82.772	28.330	1.00	0.00
ATOM	1215	10CT	GLY	1	551	22.524	82.235	27.651	1.00	0.00
ATOM	1216	20CT	GLY	1	551	24.388	82.150	28.679	1.00	0.00
ATOM	1217	H	GLY	1	551	21.108	84.092	28.872	1.00	0.00
ATOM	1218	N	VAL	2	661	27.598	80.303	30.863	1.00	0.00
ATOM	1219	CA	VAL	2	661	26.263	79.728	30.969	1.00	0.00
ATOM	1220	C	VAL	2	661	25.556	80.497	32.068	1.00	0.00
ATOM	1221	O	VAL	2	661	25.467	80.081	33.217	1.00	0.00
ATOM	1222	CB	VAL	2	661	26.370	78.202	31.202	1.00	0.00
ATOM	1223	CG1	VAL	2	661	27.312	77.804	32.348	1.00	0.00
ATOM	1224	CG2	VAL	2	661	24.986	77.549	31.304	1.00	0.00
ATOM	1225	1HT	VAL	2	661	28.373	79.662	30.659	1.00	0.00
ATOM	1226	2HT	VAL	2	661	27.567	81.082	30.178	1.00	0.00
ATOM	1227	3HT	VAL	2	661	27.807	80.852	31.727	1.00	0.00
ATOM	1228	N	GLU	2	662	25.126	81.679	31.668	1.00	0.00
ATOM	1229	CA	GLU	2	662	24.988	82.716	32.681	1.00	0.00
ATOM	1230	C	GLU	2	662	23.622	82.747	33.349	1.00	0.00
ATOM	1231	O	GLU	2	662	23.418	83.336	34.410	1.00	0.00
ATOM	1232	CB	GLU	2	662	25.433	84.047	32.058	1.00	0.00
ATOM	1233	CG	GLU	2	662	26.956	84.230	31.848	1.00	0.00
ATOM	1234	CD	GLU	2	662	27.616	83.112	31.041	1.00	0.00
ATOM	1235	OE1	GLU	2	662	28.591	82.529	31.503	1.00	0.00
ATOM	1236	OE2	GLU	2	662	27.150	82.758	29.961	1.00	0.00
ATOM	1237	H	GLU	2	662	25.088	81.927	30.698	1.00	0.00
ATOM	1238	N	ARG	2	663	22.711	82.002	32.703	1.00	0.00
ATOM	1239	CA	ARG	2	663	21.528	81.518	33.404	1.00	0.00
ATOM	1240	C	ARG	2	663	21.879	80.481	34.467	1.00	0.00
ATOM	1241	O	ARG	2	663	21.905	79.271	34.258	1.00	0.00
ATOM	1242	CB	ARG	2	663	20.441	81.050	32.412	1.00	0.00
ATOM	1243	CG	ARG	2	663	20.705	79.852	31.476	1.00	0.00
ATOM	1244	CD	ARG	2	663	21.664	80.072	30.298	1.00	0.00
ATOM	1245	NE	ARG	2	663	21.777	78.845	29.506	1.00	0.00
ATOM	1246	CZ	ARG	2	663	22.668	78.713	28.500	1.00	0.00
ATOM	1247	NH1	ARG	2	663	23.491	79.696	28.194	1.00	0.00
ATOM	1248	NH2	ARG	2	663	22.699	77.584	27.805	1.00	0.00
ATOM	1249	H	ARG	2	663	22.936	81.716	31.777	1.00	0.00
ATOM	1250	HE	ARG	2	663	21.086	78.137	29.661	1.00	0.00
ATOM	1251	1HH1	ARG	2	663	24.209	79.607	27.508	1.00	0.00
ATOM	1252	2HH1	ARG	2	663	23.405	80.608	28.630	1.00	0.00
ATOM	1253	1HH2	ARG	2	663	23.351	77.465	27.057	1.00	0.00
ATOM	1254	2HH2	ARG	2	663	22.046	76.846	27.993	1.00	0.00
ATOM	1255	N	MET	2	664	22.200	81.036	35.642	1.00	0.00
ATOM	1256	CA	MET	2	664	22.810	80.216	36.689	1.00	0.00
ATOM	1257	C	MET	2	664	21.896	79.254	37.440	1.00	0.00
ATOM	1258	O	MET	2	664	20.702	79.490	37.616	1.00	0.00
ATOM	1259	CB	MET	2	664	23.575	81.119	37.661	1.00	0.00
ATOM	1260	CG	MET	2	664	22.690	82.057	38.488	1.00	0.00
ATOM	1261	SD	MET	2	664	23.644	83.095	39.604	1.00	0.00
ATOM	1262	CE	MET	2	664	24.466	81.779	40.517	1.00	0.00
ATOM	1263	H	MET	2	664	22.218	82.039	35.656	1.00	0.00
ATOM	1264	N	GLU	2	665	22.556	78.184	37.901	1.00	0.00
ATOM	1265	CA	GLU	2	665	21.973	77.302	38.915	1.00	0.00
ATOM	1266	C	GLU	2	665	22.267	77.781	40.329	1.00	0.00
ATOM	1267	O	GLU	2	665	22.769	78.869	40.570	1.00	0.00
ATOM	1268	CB	GLU	2	665	22.570	75.910	38.755	1.00	0.00
ATOM	1269	CG	GLU	2	665	22.002	75.104	37.596	1.00	0.00
ATOM	1270	CD	GLU	2	665	20.719	74.408	37.989	1.00	0.00

ATOM	1271	OE1	GLU	2	665	20.096	73.819	37.118	1.00	0.00
ATOM	1272	OE2	GLU	2	665	20.326	74.427	39.152	1.00	0.00
ATOM	1273	H	GLU	2	665	23.513	78.100	37.627	1.00	0.00
ATOM	1274	N	SER	2	666	22.008	76.912	41.322	1.00	0.00
ATOM	1275	CA	SER	2	666	22.509	77.312	42.643	1.00	0.00
ATOM	1276	C	SER	2	666	23.955	76.931	43.008	1.00	0.00
ATOM	1277	O	SER	2	666	24.791	77.823	43.161	1.00	0.00
ATOM	1278	CB	SER	2	666	21.457	77.014	43.724	1.00	0.00
ATOM	1279	OG	SER	2	666	20.605	75.940	43.273	1.00	0.00
ATOM	1280	H	SER	2	666	21.617	76.002	41.195	1.00	0.00
ATOM	1281	HG	SER	2	666	19.780	76.370	43.045	1.00	0.00
ATOM	1282	N	PRO	2	667	24.249	75.606	43.156	1.00	0.00
ATOM	1283	CA	PRO	2	667	25.596	75.246	43.590	1.00	0.00
ATOM	1284	C	PRO	2	667	26.467	74.842	42.408	1.00	0.00
ATOM	1285	O	PRO	2	667	26.149	75.082	41.242	1.00	0.00
ATOM	1286	CB	PRO	2	667	25.278	74.098	44.552	1.00	0.00
ATOM	1287	CG	PRO	2	667	24.076	73.372	43.941	1.00	0.00
ATOM	1288	CD	PRO	2	667	23.408	74.413	43.044	1.00	0.00
ATOM	1289	N	ILE	2	668	27.586	74.199	42.767	1.00	0.00
ATOM	1290	CA	ILE	2	668	28.525	73.667	41.784	1.00	0.00
ATOM	1291	C	ILE	2	668	29.181	72.428	42.397	1.00	0.00
ATOM	1292	O	ILE	2	668	28.803	72.017	43.492	1.00	0.00
ATOM	1293	CB	ILE	2	668	29.492	74.803	41.376	1.00	0.00
ATOM	1294	CG1	ILE	2	668	30.291	74.533	40.096	1.00	0.00
ATOM	1295	CG2	ILE	2	668	30.392	75.207	42.554	1.00	0.00
ATOM	1296	CD1	ILE	2	668	31.169	75.711	39.673	1.00	0.00
ATOM	1297	H	ILE	2	668	27.817	74.032	43.729	1.00	0.00
ATOM	1298	N	ASP	2	669	30.171	71.823	41.725	1.00	0.00
ATOM	1299	CA	ASP	2	669	31.112	70.987	42.470	1.00	0.00
ATOM	1300	C	ASP	2	669	32.413	71.757	42.646	1.00	0.00
ATOM	1301	O	ASP	2	669	33.355	71.639	41.866	1.00	0.00
ATOM	1302	CB	ASP	2	669	31.317	69.654	41.727	1.00	0.00
ATOM	1303	CG	ASP	2	669	32.130	68.609	42.487	1.00	0.00
ATOM	1304	OD1	ASP	2	669	31.638	67.512	42.712	1.00	0.00
ATOM	1305	OD2	ASP	2	669	33.277	68.845	42.824	1.00	0.00
ATOM	1306	H	ASP	2	669	30.406	72.058	40.785	1.00	0.00
ATOM	1307	N	SER	2	670	32.429	72.593	43.691	1.00	0.00
ATOM	1308	CA	SER	2	670	33.782	72.929	44.123	1.00	0.00
ATOM	1309	C	SER	2	670	34.070	72.069	45.326	1.00	0.00
ATOM	1310	O	SER	2	670	33.161	71.429	45.856	1.00	0.00
ATOM	1311	CB	SER	2	670	33.990	74.424	44.396	1.00	0.00
ATOM	1312	OG	SER	2	670	35.391	74.750	44.269	1.00	0.00
ATOM	1313	H	SER	2	670	31.641	72.614	44.306	1.00	0.00
ATOM	1314	HG	SER	2	670	35.543	74.887	43.337	1.00	0.00
ATOM	1315	N	ALA	2	671	35.353	72.030	45.714	1.00	0.00
ATOM	1316	CA	ALA	2	671	35.787	70.958	46.612	1.00	0.00
ATOM	1317	C	ALA	2	671	34.894	70.727	47.821	1.00	0.00
ATOM	1318	O	ALA	2	671	34.607	69.592	48.217	1.00	0.00
ATOM	1319	CB	ALA	2	671	37.216	71.211	47.095	1.00	0.00
ATOM	1320	H	ALA	2	671	35.970	72.721	45.334	1.00	0.00
ATOM	1321	N	ASP	2	672	34.484	71.881	48.360	1.00	0.00
ATOM	1322	CA	ASP	2	672	33.662	71.994	49.554	1.00	0.00
ATOM	1323	C	ASP	2	672	32.192	71.630	49.402	1.00	0.00
ATOM	1324	O	ASP	2	672	31.609	71.007	50.280	1.00	0.00
ATOM	1325	CB	ASP	2	672	33.851	73.407	50.136	1.00	0.00
ATOM	1326	CG	ASP	2	672	33.226	74.521	49.291	1.00	0.00
ATOM	1327	OD1	ASP	2	672	33.056	74.399	48.083	1.00	0.00
ATOM	1328	OD2	ASP	2	672	32.847	75.536	49.848	1.00	0.00
ATOM	1329	H	ASP	2	672	34.663	72.741	47.874	1.00	0.00
ATOM	1330	N	ASP	2	673	31.611	72.031	48.264	1.00	0.00
ATOM	1331	CA	ASP	2	673	30.153	72.026	48.133	1.00	0.00
ATOM	1332	C	ASP	2	673	29.400	70.805	48.581	1.00	0.00
ATOM	1333	O	ASP	2	673	28.325	70.874	49.170	1.00	0.00
ATOM	1334	CB	ASP	2	673	29.715	72.385	46.718	1.00	0.00
ATOM	1335	CG	ASP	2	673	29.455	73.868	46.695	1.00	0.00
ATOM	1336	OD1	ASP	2	673	30.222	74.599	46.087	1.00	0.00
ATOM	1337	OD2	ASP	2	673	28.512	74.326	47.330	1.00	0.00

ATOM	1338	H	ASP	2	673	32.166	72.591	47.651	1.00	0.00
ATOM	1339	N	LEU	2	674	29.995	69.655	48.259	1.00	0.00
ATOM	1340	CA	LEU	2	674	29.339	68.380	48.593	1.00	0.00
ATOM	1341	C	LEU	2	674	29.158	68.130	50.094	1.00	0.00
ATOM	1342	O	LEU	2	674	28.239	67.471	50.591	1.00	0.00
ATOM	1343	CB	LEU	2	674	30.091	67.226	47.931	1.00	0.00
ATOM	1344	CG	LEU	2	674	30.315	67.407	46.425	1.00	0.00
ATOM	1345	CD1	LEU	2	674	31.186	66.288	45.855	1.00	0.00
ATOM	1346	CD2	LEU	2	674	29.007	67.564	45.645	1.00	0.00
ATOM	1347	H	LEU	2	674	30.934	69.748	47.921	1.00	0.00
ATOM	1348	N	ALA	2	675	30.107	68.745	50.823	1.00	0.00
ATOM	1349	CA	ALA	2	675	29.893	68.948	52.247	1.00	0.00
ATOM	1350	C	ALA	2	675	28.977	70.126	52.547	1.00	0.00
ATOM	1351	O	ALA	2	675	27.881	69.949	53.081	1.00	0.00
ATOM	1352	CB	ALA	2	675	31.229	69.112	52.978	1.00	0.00
ATOM	1353	H	ALA	2	675	30.804	69.271	50.333	1.00	0.00
ATOM	1354	N	LYS	2	676	29.480	71.327	52.195	1.00	0.00
ATOM	1355	CA	LYS	2	676	28.894	72.557	52.738	1.00	0.00
ATOM	1356	C	LYS	2	676	27.471	72.898	52.342	1.00	0.00
ATOM	1357	O	LYS	2	676	26.668	73.386	53.138	1.00	0.00
ATOM	1358	CB	LYS	2	676	29.849	73.760	52.585	1.00	0.00
ATOM	1359	CG	LYS	2	676	30.206	74.357	51.208	1.00	0.00
ATOM	1360	CD	LYS	2	676	29.203	75.324	50.556	1.00	0.00
ATOM	1361	CE	LYS	2	676	29.827	76.426	49.668	1.00	0.00
ATOM	1362	NZ	LYS	2	676	30.612	75.894	48.542	1.00	0.00
ATOM	1363	H	LYS	2	676	30.342	71.342	51.682	1.00	0.00
ATOM	1364	1HZ	LYS	2	676	31.383	75.271	48.867	1.00	0.00
ATOM	1365	2HZ	LYS	2	676	30.017	75.377	47.866	1.00	0.00
ATOM	1366	3HZ	LYS	2	676	31.097	76.655	48.032	1.00	0.00
ATOM	1367	N	GLN	2	677	27.165	72.614	51.071	1.00	0.00
ATOM	1368	CA	GLN	2	677	25.790	72.829	50.634	1.00	0.00
ATOM	1369	C	GLN	2	677	24.861	71.693	51.029	1.00	0.00
ATOM	1370	O	GLN	2	677	24.418	70.900	50.208	1.00	0.00
ATOM	1371	CB	GLN	2	677	25.727	73.079	49.126	1.00	0.00
ATOM	1372	CG	GLN	2	677	24.646	74.089	48.728	1.00	0.00
ATOM	1373	CD	GLN	2	677	25.132	75.495	49.029	1.00	0.00
ATOM	1374	OE1	GLN	2	677	24.853	76.093	50.068	1.00	0.00
ATOM	1375	NE2	GLN	2	677	25.892	75.992	48.046	1.00	0.00
ATOM	1376	H	GLN	2	677	27.849	72.133	50.522	1.00	0.00
ATOM	1377	1HE2	GLN	2	677	26.290	76.905	48.108	1.00	0.00
ATOM	1378	2HE2	GLN	2	677	26.081	75.431	47.239	1.00	0.00
ATOM	1379	N	THR	2	678	24.584	71.652	52.345	1.00	0.00
ATOM	1380	CA	THR	2	678	23.696	70.674	52.996	1.00	0.00
ATOM	1381	C	THR	2	678	22.307	70.572	52.369	1.00	0.00
ATOM	1382	O	THR	2	678	21.312	71.089	52.874	1.00	0.00
ATOM	1383	CB	THR	2	678	23.648	70.947	54.530	1.00	0.00
ATOM	1384	OG1	THR	2	678	22.771	70.051	55.251	1.00	0.00
ATOM	1385	CG2	THR	2	678	23.313	72.408	54.862	1.00	0.00
ATOM	1386	H	THR	2	678	24.992	72.379	52.897	1.00	0.00
ATOM	1387	HG1	THR	2	678	21.971	70.016	54.732	1.00	0.00
ATOM	1388	N	LYS	2	679	22.292	69.841	51.247	1.00	0.00
ATOM	1389	CA	LYS	2	679	21.134	69.696	50.371	1.00	0.00
ATOM	1390	C	LYS	2	679	21.482	68.810	49.194	1.00	0.00
ATOM	1391	O	LYS	2	679	20.696	67.953	48.805	1.00	0.00
ATOM	1392	CB	LYS	2	679	20.625	71.036	49.807	1.00	0.00
ATOM	1393	CG	LYS	2	679	19.215	70.982	49.191	1.00	0.00
ATOM	1394	CD	LYS	2	679	18.862	72.270	48.438	1.00	0.00
ATOM	1395	CE	LYS	2	679	17.375	72.479	48.105	1.00	0.00
ATOM	1396	NZ	LYS	2	679	16.836	71.473	47.181	1.00	0.00
ATOM	1397	H	LYS	2	679	23.178	69.488	50.944	1.00	0.00
ATOM	1398	1HZ	LYS	2	679	17.529	70.981	46.593	1.00	0.00
ATOM	1399	2HZ	LYS	2	679	16.220	70.779	47.629	1.00	0.00
ATOM	1400	3HZ	LYS	2	679	16.235	71.952	46.475	1.00	0.00
ATOM	1401	N	ILE	2	680	22.657	69.099	48.623	1.00	0.00
ATOM	1402	CA	ILE	2	680	22.945	68.624	47.273	1.00	0.00
ATOM	1403	C	ILE	2	680	23.012	67.111	47.066	1.00	0.00
ATOM	1404	O	ILE	2	680	24.036	66.447	47.222	1.00	0.00

ATOM	1405	CB	ILE	2	680	24.183	69.371	46.724	1.00	0.00
ATOM	1406	CG1	ILE	2	680	24.464	69.050	45.250	1.00	0.00
ATOM	1407	CG2	ILE	2	680	25.429	69.134	47.596	1.00	0.00
ATOM	1408	CD1	ILE	2	680	25.683	69.788	44.692	1.00	0.00
ATOM	1409	H	ILE	2	680	23.231	69.823	49.006	1.00	0.00
ATOM	1410	N	GLU	2	681	21.878	66.555	46.631	1.00	0.00
ATOM	1411	CA	GLU	2	681	22.089	65.263	45.994	1.00	0.00
ATOM	1412	C	GLU	2	681	22.545	65.426	44.565	1.00	0.00
ATOM	1413	O	GLU	2	681	21.767	65.563	43.617	1.00	0.00
ATOM	1414	CB	GLU	2	681	20.903	64.305	46.076	1.00	0.00
ATOM	1415	CG	GLU	2	681	21.433	62.907	45.719	1.00	0.00
ATOM	1416	CD	GLU	2	681	20.362	61.839	45.649	1.00	0.00
ATOM	1417	OE1	GLU	2	681	20.691	60.688	45.404	1.00	0.00
ATOM	1418	OE2	GLU	2	681	19.191	62.128	45.823	1.00	0.00
ATOM	1419	H	GLU	2	681	21.056	67.106	46.534	1.00	0.00
ATOM	1420	N	TYR	2	682	23.880	65.428	44.455	1.00	0.00
ATOM	1421	CA	TYR	2	682	24.428	65.288	43.118	1.00	0.00
ATOM	1422	C	TYR	2	682	24.213	63.876	42.616	1.00	0.00
ATOM	1423	O	TYR	2	682	24.173	62.909	43.385	1.00	0.00
ATOM	1424	CB	TYR	2	682	25.876	65.816	43.046	1.00	0.00
ATOM	1425	CG	TYR	2	682	26.946	64.777	43.313	1.00	0.00
ATOM	1426	CD1	TYR	2	682	27.545	64.157	42.200	1.00	0.00
ATOM	1427	CD2	TYR	2	682	27.335	64.471	44.633	1.00	0.00
ATOM	1428	CE1	TYR	2	682	28.564	63.216	42.401	1.00	0.00
ATOM	1429	CE2	TYR	2	682	28.363	63.533	44.837	1.00	0.00
ATOM	1430	CZ	TYR	2	682	28.958	62.912	43.717	1.00	0.00
ATOM	1431	OH	TYR	2	682	29.946	61.957	43.904	1.00	0.00
ATOM	1432	H	TYR	2	682	24.399	65.292	45.295	1.00	0.00
ATOM	1433	HH	TYR	2	682	30.344	62.051	44.774	1.00	0.00
ATOM	1434	N	GLY	2	683	23.971	63.830	41.322	1.00	0.00
ATOM	1435	CA	GLY	2	683	23.567	62.532	40.844	1.00	0.00
ATOM	1436	C	GLY	2	683	24.668	61.833	40.118	1.00	0.00
ATOM	1437	O	GLY	2	683	25.860	62.091	40.299	1.00	0.00
ATOM	1438	H	GLY	2	683	24.259	64.560	40.706	1.00	0.00
ATOM	1439	N	ALA	2	684	24.139	60.974	39.248	1.00	0.00
ATOM	1440	CA	ALA	2	684	24.823	60.216	38.216	1.00	0.00
ATOM	1441	C	ALA	2	684	23.777	59.263	37.703	1.00	0.00
ATOM	1442	O	ALA	2	684	22.918	58.777	38.450	1.00	0.00
ATOM	1443	CB	ALA	2	684	25.997	59.396	38.746	1.00	0.00
ATOM	1444	H	ALA	2	684	23.143	60.895	39.258	1.00	0.00
ATOM	1445	N	VAL	2	685	23.856	59.023	36.390	1.00	0.00
ATOM	1446	CA	VAL	2	685	22.980	58.034	35.757	1.00	0.00
ATOM	1447	C	VAL	2	685	23.389	56.658	36.214	1.00	0.00
ATOM	1448	O	VAL	2	685	24.462	56.546	36.812	1.00	0.00
ATOM	1449	CB	VAL	2	685	23.037	58.156	34.233	1.00	0.00
ATOM	1450	CG1	VAL	2	685	22.668	59.583	33.856	1.00	0.00
ATOM	1451	CG2	VAL	2	685	24.383	57.739	33.631	1.00	0.00
ATOM	1452	H	VAL	2	685	24.583	59.488	35.893	1.00	0.00
ATOM	1453	N	GLU	2	686	22.523	55.674	35.975	1.00	0.00
ATOM	1454	CA	GLU	2	686	22.859	54.388	36.583	1.00	0.00
ATOM	1455	C	GLU	2	686	24.055	53.719	35.929	1.00	0.00
ATOM	1456	O	GLU	2	686	24.981	53.192	36.559	1.00	0.00
ATOM	1457	CB	GLU	2	686	21.602	53.511	36.601	1.00	0.00
ATOM	1458	CG	GLU	2	686	21.046	53.173	37.998	1.00	0.00
ATOM	1459	CD	GLU	2	686	20.491	54.358	38.794	1.00	0.00
ATOM	1460	OE1	GLU	2	686	20.766	55.511	38.494	1.00	0.00
ATOM	1461	OE2	GLU	2	686	19.757	54.139	39.752	1.00	0.00
ATOM	1462	H	GLU	2	686	21.803	55.748	35.284	1.00	0.00
ATOM	1463	N	ASP	2	687	24.039	53.849	34.595	1.00	0.00
ATOM	1464	CA	ASP	2	687	25.102	53.265	33.769	1.00	0.00
ATOM	1465	C	ASP	2	687	26.520	53.782	34.061	1.00	0.00
ATOM	1466	O	ASP	2	687	27.550	53.252	33.631	1.00	0.00
ATOM	1467	CB	ASP	2	687	24.701	53.397	32.288	1.00	0.00
ATOM	1468	CG	ASP	2	687	23.210	53.104	32.120	1.00	0.00
ATOM	1469	OD1	ASP	2	687	22.424	54.039	32.036	1.00	0.00
ATOM	1470	OD2	ASP	2	687	22.804	51.951	32.115	1.00	0.00
ATOM	1471	H	ASP	2	687	23.221	54.260	34.181	1.00	0.00

ATOM	1472	N	GLY	2	688	26.544	54.866	34.851	1.00	0.00
ATOM	1473	CA	GLY	2	688	27.773	55.382	35.434	1.00	0.00
ATOM	1474	C	GLY	2	688	28.324	54.573	36.595	1.00	0.00
ATOM	1475	O	GLY	2	688	28.514	55.020	37.730	1.00	0.00
ATOM	1476	H	GLY	2	688	25.680	55.215	35.192	1.00	0.00
ATOM	1477	N	ALA	2	689	28.701	53.328	36.234	1.00	0.00
ATOM	1478	CA	ALA	2	689	29.587	52.607	37.152	1.00	0.00
ATOM	1479	C	ALA	2	689	30.813	53.458	37.462	1.00	0.00
ATOM	1480	O	ALA	2	689	30.929	54.029	38.549	1.00	0.00
ATOM	1481	CB	ALA	2	689	29.993	51.249	36.571	1.00	0.00
ATOM	1482	H	ALA	2	689	28.430	53.018	35.322	1.00	0.00
ATOM	1483	N	THR	2	690	31.620	53.627	36.391	1.00	0.00
ATOM	1484	CA	THR	2	690	32.630	54.686	36.354	1.00	0.00
ATOM	1485	C	THR	2	690	32.268	55.927	37.159	1.00	0.00
ATOM	1486	O	THR	2	690	32.825	56.139	38.234	1.00	0.00
ATOM	1487	CB	THR	2	690	32.930	55.031	34.895	1.00	0.00
ATOM	1488	OG1	THR	2	690	31.709	55.049	34.132	1.00	0.00
ATOM	1489	CG2	THR	2	690	33.923	54.047	34.273	1.00	0.00
ATOM	1490	H	THR	2	690	31.523	53.058	35.577	1.00	0.00
ATOM	1491	HG1	THR	2	690	31.959	55.369	33.266	1.00	0.00
ATOM	1492	N	MET	2	691	31.251	56.655	36.653	1.00	0.00
ATOM	1493	CA	MET	2	691	30.851	57.935	37.256	1.00	0.00
ATOM	1494	C	MET	2	691	30.626	57.935	38.761	1.00	0.00
ATOM	1495	O	MET	2	691	31.390	58.479	39.565	1.00	0.00
ATOM	1496	CB	MET	2	691	29.598	58.505	36.577	1.00	0.00
ATOM	1497	CG	MET	2	691	29.625	58.614	35.051	1.00	0.00
ATOM	1498	SD	MET	2	691	28.003	59.100	34.428	1.00	0.00
ATOM	1499	CE	MET	2	691	28.079	58.266	32.833	1.00	0.00
ATOM	1500	H	MET	2	691	30.883	56.310	35.788	1.00	0.00
ATOM	1501	N	THR	2	692	29.506	57.302	39.148	1.00	0.00
ATOM	1502	CA	THR	2	692	29.107	57.441	40.549	1.00	0.00
ATOM	1503	C	THR	2	692	29.981	56.696	41.529	1.00	0.00
ATOM	1504	O	THR	2	692	29.821	56.818	42.742	1.00	0.00
ATOM	1505	CB	THR	2	692	27.643	57.033	40.755	1.00	0.00
ATOM	1506	OG1	THR	2	692	27.130	57.503	42.024	1.00	0.00
ATOM	1507	CG2	THR	2	692	27.452	55.521	40.586	1.00	0.00
ATOM	1508	H	THR	2	692	28.986	56.739	38.503	1.00	0.00
ATOM	1509	HG1	THR	2	692	26.977	58.439	41.883	1.00	0.00
ATOM	1510	N	PHE	2	693	30.881	55.852	40.989	1.00	0.00
ATOM	1511	CA	PHE	2	693	31.826	55.316	41.959	1.00	0.00
ATOM	1512	C	PHE	2	693	33.073	56.159	42.109	1.00	0.00
ATOM	1513	O	PHE	2	693	33.580	56.336	43.215	1.00	0.00
ATOM	1514	CB	PHE	2	693	32.106	53.832	41.709	1.00	0.00
ATOM	1515	CG	PHE	2	693	30.840	53.049	41.992	1.00	0.00
ATOM	1516	CD1	PHE	2	693	30.173	52.396	40.933	1.00	0.00
ATOM	1517	CD2	PHE	2	693	30.334	52.996	43.310	1.00	0.00
ATOM	1518	CE1	PHE	2	693	28.972	51.705	41.186	1.00	0.00
ATOM	1519	CE2	PHE	2	693	29.133	52.306	43.568	1.00	0.00
ATOM	1520	CZ	PHE	2	693	28.459	51.676	42.500	1.00	0.00
ATOM	1521	H	PHE	2	693	30.981	55.720	39.999	1.00	0.00
ATOM	1522	N	PHE	2	694	33.495	56.711	40.950	1.00	0.00
ATOM	1523	CA	PHE	2	694	34.725	57.502	40.935	1.00	0.00
ATOM	1524	C	PHE	2	694	34.577	58.829	41.649	1.00	0.00
ATOM	1525	O	PHE	2	694	35.347	59.171	42.535	1.00	0.00
ATOM	1526	CB	PHE	2	694	35.215	57.687	39.493	1.00	0.00
ATOM	1527	CG	PHE	2	694	36.558	58.379	39.429	1.00	0.00
ATOM	1528	CD1	PHE	2	694	36.627	59.686	38.901	1.00	0.00
ATOM	1529	CD2	PHE	2	694	37.715	57.713	39.890	1.00	0.00
ATOM	1530	CE1	PHE	2	694	37.873	60.340	38.832	1.00	0.00
ATOM	1531	CE2	PHE	2	694	38.961	58.365	39.822	1.00	0.00
ATOM	1532	CZ	PHE	2	694	39.027	59.672	39.294	1.00	0.00
ATOM	1533	H	PHE	2	694	33.005	56.602	40.087	1.00	0.00
ATOM	1534	N	LYS	2	695	33.510	59.551	41.264	1.00	0.00
ATOM	1535	CA	LYS	2	695	33.136	60.711	42.077	1.00	0.00
ATOM	1536	C	LYS	2	695	32.893	60.357	43.537	1.00	0.00
ATOM	1537	O	LYS	2	695	33.281	61.099	44.440	1.00	0.00
ATOM	1538	CB	LYS	2	695	31.913	61.426	41.491	1.00	0.00

ATOM	1539	CG	LYS	2	695	32.170	62.649	40.597	1.00	0.00
ATOM	1540	CD	LYS	2	695	32.771	63.884	41.294	1.00	0.00
ATOM	1541	CE	LYS	2	695	32.697	65.120	40.381	1.00	0.00
ATOM	1542	NZ	LYS	2	695	33.463	66.267	40.892	1.00	0.00
ATOM	1543	H	LYS	2	695	32.910	59.238	40.531	1.00	0.00
ATOM	1544	1HZ	LYS	2	695	33.543	66.958	40.122	1.00	0.00
ATOM	1545	2HZ	LYS	2	695	33.000	66.731	41.707	1.00	0.00
ATOM	1546	3HZ	LYS	2	695	34.429	65.964	41.125	1.00	0.00
ATOM	1547	N	LYS	2	696	32.286	59.165	43.731	1.00	0.00
ATOM	1548	CA	LYS	2	696	32.174	58.647	45.093	1.00	0.00
ATOM	1549	C	LYS	2	696	33.478	58.576	45.859	1.00	0.00
ATOM	1550	O	LYS	2	696	33.491	58.920	47.030	1.00	0.00
ATOM	1551	CB	LYS	2	696	31.436	57.311	45.144	1.00	0.00
ATOM	1552	CG	LYS	2	696	31.097	56.740	46.520	1.00	0.00
ATOM	1553	CD	LYS	2	696	30.338	55.408	46.464	1.00	0.00
ATOM	1554	CE	LYS	2	696	28.852	55.500	46.085	1.00	0.00
ATOM	1555	NZ	LYS	2	696	28.631	55.769	44.662	1.00	0.00
ATOM	1556	H	LYS	2	696	31.939	58.697	42.920	1.00	0.00
ATOM	1557	1HZ	LYS	2	696	29.139	56.611	44.318	1.00	0.00
ATOM	1558	2HZ	LYS	2	696	28.941	54.980	44.073	1.00	0.00
ATOM	1559	3HZ	LYS	2	696	27.613	55.898	44.508	1.00	0.00
ATOM	1560	N	SER	2	697	34.576	58.207	45.174	1.00	0.00
ATOM	1561	CA	SER	2	697	35.897	58.185	45.827	1.00	0.00
ATOM	1562	C	SER	2	697	36.302	59.436	46.622	1.00	0.00
ATOM	1563	O	SER	2	697	37.083	59.404	47.570	1.00	0.00
ATOM	1564	CB	SER	2	697	36.985	57.824	44.811	1.00	0.00
ATOM	1565	OG	SER	2	697	36.514	56.831	43.871	1.00	0.00
ATOM	1566	H	SER	2	697	34.467	57.841	44.249	1.00	0.00
ATOM	1567	HG	SER	2	697	36.132	57.339	43.152	1.00	0.00
ATOM	1568	N	LYS	2	698	35.666	60.556	46.231	1.00	0.00
ATOM	1569	CA	LYS	2	698	35.780	61.775	47.024	1.00	0.00
ATOM	1570	C	LYS	2	698	35.464	61.608	48.509	1.00	0.00
ATOM	1571	O	LYS	2	698	36.235	62.055	49.349	1.00	0.00
ATOM	1572	CB	LYS	2	698	35.031	62.922	46.336	1.00	0.00
ATOM	1573	CG	LYS	2	698	35.640	64.297	46.616	1.00	0.00
ATOM	1574	CD	LYS	2	698	35.141	65.387	45.660	1.00	0.00
ATOM	1575	CE	LYS	2	698	35.556	66.799	46.095	1.00	0.00
ATOM	1576	NZ	LYS	2	698	34.768	67.173	47.272	1.00	0.00
ATOM	1577	H	LYS	2	698	35.141	60.522	45.384	1.00	0.00
ATOM	1578	1HZ	LYS	2	698	33.776	67.373	47.041	1.00	0.00
ATOM	1579	2HZ	LYS	2	698	34.752	66.390	47.955	1.00	0.00
ATOM	1580	3HZ	LYS	2	698	35.143	67.994	47.779	1.00	0.00
ATOM	1581	N	ILE	2	699	34.400	60.848	48.828	1.00	0.00
ATOM	1582	CA	ILE	2	699	34.267	60.455	50.239	1.00	0.00
ATOM	1583	C	ILE	2	699	35.421	59.618	50.798	1.00	0.00
ATOM	1584	O	ILE	2	699	35.839	59.740	51.943	1.00	0.00
ATOM	1585	CB	ILE	2	699	32.893	59.811	50.541	1.00	0.00
ATOM	1586	CG1	ILE	2	699	32.601	59.806	52.044	1.00	0.00
ATOM	1587	CG2	ILE	2	699	32.764	58.385	49.985	1.00	0.00
ATOM	1588	CD1	ILE	2	699	31.219	59.250	52.394	1.00	0.00
ATOM	1589	H	ILE	2	699	33.857	60.438	48.097	1.00	0.00
ATOM	1590	N	SER	2	700	35.968	58.748	49.943	1.00	0.00
ATOM	1591	CA	SER	2	700	37.015	57.846	50.434	1.00	0.00
ATOM	1592	C	SER	2	700	38.337	58.511	50.826	1.00	0.00
ATOM	1593	O	SER	2	700	38.984	58.158	51.805	1.00	0.00
ATOM	1594	CB	SER	2	700	37.187	56.713	49.423	1.00	0.00
ATOM	1595	OG	SER	2	700	35.890	56.191	49.087	1.00	0.00
ATOM	1596	H	SER	2	700	35.672	58.682	48.988	1.00	0.00
ATOM	1597	HG	SER	2	700	35.948	55.265	49.307	1.00	0.00
ATOM	1598	N	THR	2	701	38.675	59.545	50.042	1.00	0.00
ATOM	1599	CA	THR	2	701	39.640	60.508	50.566	1.00	0.00
ATOM	1600	C	THR	2	701	38.903	61.717	51.116	1.00	0.00
ATOM	1601	O	THR	2	701	38.621	62.686	50.420	1.00	0.00
ATOM	1602	CB	THR	2	701	40.652	60.892	49.483	1.00	0.00
ATOM	1603	OG1	THR	2	701	41.247	59.709	48.931	1.00	0.00
ATOM	1604	CG2	THR	2	701	41.749	61.827	50.006	1.00	0.00
ATOM	1605	H	THR	2	701	38.194	59.742	49.186	1.00	0.00

ATOM	1606	HG1	THR	2	701	41.834	59.361	49.597	1.00	0.00
ATOM	1607	N	TYR	2	702	38.558	61.560	52.403	1.00	0.00
ATOM	1608	CA	TYR	2	702	37.478	62.310	53.060	1.00	0.00
ATOM	1609	C	TYR	2	702	37.190	63.788	52.821	1.00	0.00
ATOM	1610	O	TYR	2	702	37.393	64.633	53.689	1.00	0.00
ATOM	1611	CB	TYR	2	702	37.478	62.002	54.563	1.00	0.00
ATOM	1612	CG	TYR	2	702	36.868	60.636	54.741	1.00	0.00
ATOM	1613	CD1	TYR	2	702	37.698	59.497	54.696	1.00	0.00
ATOM	1614	CD2	TYR	2	702	35.470	60.541	54.891	1.00	0.00
ATOM	1615	CE1	TYR	2	702	37.102	58.228	54.673	1.00	0.00
ATOM	1616	CE2	TYR	2	702	34.875	59.271	54.872	1.00	0.00
ATOM	1617	CZ	TYR	2	702	35.697	58.139	54.710	1.00	0.00
ATOM	1618	OH	TYR	2	702	35.099	56.907	54.559	1.00	0.00
ATOM	1619	H	TYR	2	702	38.925	60.744	52.853	1.00	0.00
ATOM	1620	HH	TYR	2	702	35.731	56.250	54.834	1.00	0.00
ATOM	1621	N	ASP	2	703	36.579	64.027	51.648	1.00	0.00
ATOM	1622	CA	ASP	2	703	35.448	64.963	51.588	1.00	0.00
ATOM	1623	C	ASP	2	703	34.256	64.207	52.137	1.00	0.00
ATOM	1624	O	ASP	2	703	34.231	62.982	52.066	1.00	0.00
ATOM	1625	CB	ASP	2	703	35.219	65.378	50.121	1.00	0.00
ATOM	1626	CG	ASP	2	703	33.832	65.948	49.788	1.00	0.00
ATOM	1627	OD1	ASP	2	703	33.269	66.703	50.565	1.00	0.00
ATOM	1628	OD2	ASP	2	703	33.304	65.647	48.721	1.00	0.00
ATOM	1629	H	ASP	2	703	36.707	63.348	50.924	1.00	0.00
ATOM	1630	N	LYS	2	704	33.284	64.936	52.692	1.00	0.00
ATOM	1631	CA	LYS	2	704	32.109	64.199	53.137	1.00	0.00
ATOM	1632	C	LYS	2	704	31.292	63.620	51.980	1.00	0.00
ATOM	1633	O	LYS	2	704	30.785	62.506	52.050	1.00	0.00
ATOM	1634	CB	LYS	2	704	31.329	65.089	54.117	1.00	0.00
ATOM	1635	CG	LYS	2	704	30.131	64.468	54.848	1.00	0.00
ATOM	1636	CD	LYS	2	704	28.823	64.667	54.084	1.00	0.00
ATOM	1637	CE	LYS	2	704	28.516	66.153	53.906	1.00	0.00
ATOM	1638	NZ	LYS	2	704	27.622	66.324	52.767	1.00	0.00
ATOM	1639	H	LYS	2	704	33.361	65.928	52.585	1.00	0.00
ATOM	1640	1HZ	LYS	2	704	27.777	67.229	52.275	1.00	0.00
ATOM	1641	2HZ	LYS	2	704	27.819	65.567	52.090	1.00	0.00
ATOM	1642	3HZ	LYS	2	704	26.643	66.266	53.091	1.00	0.00
ATOM	1643	N	MET	2	705	31.189	64.432	50.914	1.00	0.00
ATOM	1644	CA	MET	2	705	30.542	64.032	49.655	1.00	0.00
ATOM	1645	C	MET	2	705	29.030	63.795	49.606	1.00	0.00
ATOM	1646	O	MET	2	705	28.391	63.984	48.571	1.00	0.00
ATOM	1647	CB	MET	2	705	31.298	62.880	48.992	1.00	0.00
ATOM	1648	CG	MET	2	705	31.066	62.787	47.487	1.00	0.00
ATOM	1649	SD	MET	2	705	31.326	61.114	46.916	1.00	0.00
ATOM	1650	CE	MET	2	705	30.137	60.314	48.004	1.00	0.00
ATOM	1651	H	MET	2	705	31.738	65.270	50.881	1.00	0.00
ATOM	1652	N	TRP	2	706	28.463	63.403	50.767	1.00	0.00
ATOM	1653	CA	TRP	2	706	27.033	63.150	50.992	1.00	0.00
ATOM	1654	C	TRP	2	706	26.531	61.856	50.380	1.00	0.00
ATOM	1655	O	TRP	2	706	26.956	61.431	49.309	1.00	0.00
ATOM	1656	CB	TRP	2	706	26.146	64.345	50.594	1.00	0.00
ATOM	1657	CG	TRP	2	706	24.916	64.431	51.472	1.00	0.00
ATOM	1658	CD1	TRP	2	706	24.871	64.383	52.877	1.00	0.00
ATOM	1659	CD2	TRP	2	706	23.543	64.600	51.058	1.00	0.00
ATOM	1660	NE1	TRP	2	706	23.598	64.510	53.341	1.00	0.00
ATOM	1661	CE2	TRP	2	706	22.743	64.646	52.250	1.00	0.00
ATOM	1662	CE3	TRP	2	706	22.931	64.716	49.793	1.00	0.00
ATOM	1663	CZ2	TRP	2	706	21.345	64.809	52.149	1.00	0.00
ATOM	1664	CZ3	TRP	2	706	21.532	64.877	49.708	1.00	0.00
ATOM	1665	CH2	TRP	2	706	20.743	64.924	50.878	1.00	0.00
ATOM	1666	H	TRP	2	706	29.126	63.077	51.439	1.00	0.00
ATOM	1667	HE1	TRP	2	706	23.323	64.513	54.287	1.00	0.00
ATOM	1668	N	ALA	2	707	25.594	61.218	51.112	1.00	0.00
ATOM	1669	CA	ALA	2	707	24.936	60.065	50.492	1.00	0.00
ATOM	1670	C	ALA	2	707	24.117	60.520	49.301	1.00	0.00
ATOM	1671	O	ALA	2	707	23.422	61.531	49.382	1.00	0.00
ATOM	1672	CB	ALA	2	707	24.022	59.360	51.494	1.00	0.00

ATOM	1673	H	ALA	2	707	25.199	61.681	51.906	1.00	0.00
ATOM	1674	N	PHE	2	708	24.281	59.789	48.195	1.00	0.00
ATOM	1675	CA	PHE	2	708	23.842	60.323	46.909	1.00	0.00
ATOM	1676	C	PHE	2	708	23.476	59.232	45.913	1.00	0.00
ATOM	1677	O	PHE	2	708	23.516	58.033	46.207	1.00	0.00
ATOM	1678	CB	PHE	2	708	24.904	61.298	46.346	1.00	0.00
ATOM	1679	CG	PHE	2	708	26.047	60.590	45.643	1.00	0.00
ATOM	1680	CD1	PHE	2	708	26.223	60.808	44.260	1.00	0.00
ATOM	1681	CD2	PHE	2	708	26.902	59.721	46.356	1.00	0.00
ATOM	1682	CE1	PHE	2	708	27.259	60.144	43.577	1.00	0.00
ATOM	1683	CE2	PHE	2	708	27.936	59.054	45.673	1.00	0.00
ATOM	1684	CZ	PHE	2	708	28.107	59.274	44.291	1.00	0.00
ATOM	1685	H	PHE	2	708	24.801	58.939	48.225	1.00	0.00
ATOM	1686	N	MET	2	709	23.145	59.676	44.681	1.00	0.00
ATOM	1687	CA	MET	2	709	22.849	58.693	43.623	1.00	0.00
ATOM	1688	C	MET	2	709	23.980	57.725	43.342	1.00	0.00
ATOM	1689	O	MET	2	709	25.078	57.878	43.878	1.00	0.00
ATOM	1690	CB	MET	2	709	22.417	59.374	42.325	1.00	0.00
ATOM	1691	CG	MET	2	709	21.031	60.001	42.426	1.00	0.00
ATOM	1692	SD	MET	2	709	20.587	60.953	40.975	1.00	0.00
ATOM	1693	CE	MET	2	709	19.753	62.309	41.821	1.00	0.00
ATOM	1694	H	MET	2	709	22.986	60.660	44.585	1.00	0.00
ATOM	1695	N	SER	2	710	23.636	56.713	42.543	1.00	0.00
ATOM	1696	CA	SER	2	710	24.429	55.542	42.165	1.00	0.00
ATOM	1697	C	SER	2	710	23.439	54.677	41.431	1.00	0.00
ATOM	1698	O	SER	2	710	22.419	55.206	40.997	1.00	0.00
ATOM	1699	CB	SER	2	710	25.006	54.803	43.381	1.00	0.00
ATOM	1700	OG	SER	2	710	26.140	55.523	43.895	1.00	0.00
ATOM	1701	H	SER	2	710	22.760	56.797	42.070	1.00	0.00
ATOM	1702	HG	SER	2	710	26.128	56.357	43.406	1.00	0.00
ATOM	1703	N	SER	2	711	23.666	53.358	41.420	1.00	0.00
ATOM	1704	CA	SER	2	711	22.546	52.474	41.085	1.00	0.00
ATOM	1705	C	SER	2	711	21.407	52.431	42.110	1.00	0.00
ATOM	1706	O	SER	2	711	21.108	51.403	42.711	1.00	0.00
ATOM	1707	CB	SER	2	711	23.100	51.082	40.811	1.00	0.00
ATOM	1708	OG	SER	2	711	24.417	51.195	40.241	1.00	0.00
ATOM	1709	H	SER	2	711	24.580	52.983	41.580	1.00	0.00
ATOM	1710	HG	SER	2	711	24.286	51.393	39.309	1.00	0.00
ATOM	1711	N	ARG	2	712	20.803	53.617	42.308	1.00	0.00
ATOM	1712	CA	ARG	2	712	19.872	53.904	43.393	1.00	0.00
ATOM	1713	C	ARG	2	712	18.414	53.845	42.973	1.00	0.00
ATOM	1714	O	ARG	2	712	17.679	52.957	43.396	1.00	0.00
ATOM	1715	CB	ARG	2	712	20.193	55.272	44.036	1.00	0.00
ATOM	1716	CG	ARG	2	712	19.275	55.680	45.207	1.00	0.00
ATOM	1717	CD	ARG	2	712	19.446	57.136	45.664	1.00	0.00
ATOM	1718	NE	ARG	2	712	18.420	57.528	46.643	1.00	0.00
ATOM	1719	CZ	ARG	2	712	17.848	58.758	46.576	1.00	0.00
ATOM	1720	NH1	ARG	2	712	16.902	59.114	47.439	1.00	0.00
ATOM	1721	NH2	ARG	2	712	18.212	59.619	45.638	1.00	0.00
ATOM	1722	H	ARG	2	712	20.914	54.240	41.531	1.00	0.00
ATOM	1723	HE	ARG	2	712	18.245	56.916	47.424	1.00	0.00
ATOM	1724	1HH1	ARG	2	712	16.450	60.009	47.337	1.00	0.00
ATOM	1725	2HH1	ARG	2	712	16.606	58.527	48.194	1.00	0.00
ATOM	1726	1HH2	ARG	2	712	17.916	60.586	45.668	1.00	0.00
ATOM	1727	2HH2	ARG	2	712	18.864	59.400	44.905	1.00	0.00
ATOM	1728	N	ARG	2	713	18.000	54.879	42.202	1.00	0.00
ATOM	1729	CA	ARG	2	713	16.554	54.989	41.976	1.00	0.00
ATOM	1730	C	ARG	2	713	16.099	54.148	40.813	1.00	0.00
ATOM	1731	O	ARG	2	713	15.844	54.647	39.723	1.00	0.00
ATOM	1732	CB	ARG	2	713	16.089	56.436	41.770	1.00	0.00
ATOM	1733	CG	ARG	2	713	15.991	57.279	43.041	1.00	0.00
ATOM	1734	CD	ARG	2	713	15.538	58.720	42.772	1.00	0.00
ATOM	1735	NE	ARG	2	713	14.185	58.808	42.206	1.00	0.00
ATOM	1736	CZ	ARG	2	713	13.375	59.848	42.548	1.00	0.00
ATOM	1737	NH1	ARG	2	713	12.131	59.910	42.078	1.00	0.00
ATOM	1738	NH2	ARG	2	713	13.820	60.821	43.336	1.00	0.00
ATOM	1739	H	ARG	2	713	18.705	55.336	41.656	1.00	0.00

ATOM	1740	HE	ARG	2	713	13.902	58.167	41.481	1.00	0.00
ATOM	1741	1HH1	ARG	2	713	11.508	60.659	42.311	1.00	0.00
ATOM	1742	2HH1	ARG	2	713	11.786	59.194	41.463	1.00	0.00
ATOM	1743	1HH2	ARG	2	713	13.202	61.558	43.614	1.00	0.00
ATOM	1744	2HH2	ARG	2	713	14.778	60.823	43.629	1.00	0.00
ATOM	1745	N	GLN	2	714	16.033	52.858	41.115	1.00	0.00
ATOM	1746	CA	GLN	2	714	15.762	51.909	40.057	1.00	0.00
ATOM	1747	C	GLN	2	714	14.300	51.658	39.736	1.00	0.00
ATOM	1748	O	GLN	2	714	13.684	50.664	40.118	1.00	0.00
ATOM	1749	CB	GLN	2	714	16.598	50.637	40.270	1.00	0.00
ATOM	1750	CG	GLN	2	714	16.673	50.106	41.707	1.00	0.00
ATOM	1751	CD	GLN	2	714	15.380	49.426	42.097	1.00	0.00
ATOM	1752	OE1	GLN	2	714	14.503	49.941	42.779	1.00	0.00
ATOM	1753	NE2	GLN	2	714	15.288	48.173	41.651	1.00	0.00
ATOM	1754	H	GLN	2	714	16.150	52.592	42.072	1.00	0.00
ATOM	1755	1HE2	GLN	2	714	14.495	47.608	41.890	1.00	0.00
ATOM	1756	2HE2	GLN	2	714	16.007	47.798	41.063	1.00	0.00
ATOM	1757	N	SER	2	715	13.763	52.585	38.935	1.00	0.00
ATOM	1758	CA	SER	2	715	12.535	52.218	38.233	1.00	0.00
ATOM	1759	C	SER	2	715	12.744	51.316	37.013	1.00	0.00
ATOM	1760	O	SER	2	715	12.556	51.725	35.871	1.00	0.00
ATOM	1761	CB	SER	2	715	11.716	53.462	37.870	1.00	0.00
ATOM	1762	OG	SER	2	715	12.112	54.586	38.675	1.00	0.00
ATOM	1763	H	SER	2	715	14.267	53.428	38.747	1.00	0.00
ATOM	1764	HG	SER	2	715	12.869	54.938	38.202	1.00	0.00
ATOM	1765	N	VAL	2	716	13.098	50.063	37.348	1.00	0.00
ATOM	1766	CA	VAL	2	716	13.325	48.973	36.396	1.00	0.00
ATOM	1767	C	VAL	2	716	14.542	49.114	35.481	1.00	0.00
ATOM	1768	O	VAL	2	716	15.597	48.552	35.769	1.00	0.00
ATOM	1769	CB	VAL	2	716	12.039	48.575	35.633	1.00	0.00
ATOM	1770	CG1	VAL	2	716	12.206	47.238	34.903	1.00	0.00
ATOM	1771	CG2	VAL	2	716	10.827	48.505	36.569	1.00	0.00
ATOM	1772	H	VAL	2	716	13.338	49.918	38.306	1.00	0.00
ATOM	1773	N	LEU	2	717	14.341	49.817	34.360	1.00	0.00
ATOM	1774	CA	LEU	2	717	15.383	49.782	33.331	1.00	0.00
ATOM	1775	C	LEU	2	717	16.115	51.094	33.198	1.00	0.00
ATOM	1776	O	LEU	2	717	15.682	52.115	33.720	1.00	0.00
ATOM	1777	CB	LEU	2	717	14.796	49.387	31.974	1.00	0.00
ATOM	1778	CG	LEU	2	717	14.361	47.923	31.889	1.00	0.00
ATOM	1779	CD1	LEU	2	717	13.643	47.626	30.572	1.00	0.00
ATOM	1780	CD2	LEU	2	717	15.527	46.961	32.134	1.00	0.00
ATOM	1781	H	LEU	2	717	13.563	50.443	34.332	1.00	0.00
ATOM	1782	N	VAL	2	718	17.230	51.044	32.453	1.00	0.00
ATOM	1783	CA	VAL	2	718	18.124	52.185	32.183	1.00	0.00
ATOM	1784	C	VAL	2	718	17.494	53.580	32.265	1.00	0.00
ATOM	1785	O	VAL	2	718	17.775	54.374	33.169	1.00	0.00
ATOM	1786	CB	VAL	2	718	18.829	51.959	30.825	1.00	0.00
ATOM	1787	CG1	VAL	2	718	19.740	53.116	30.397	1.00	0.00
ATOM	1788	CG2	VAL	2	718	19.600	50.637	30.826	1.00	0.00
ATOM	1789	H	VAL	2	718	17.490	50.138	32.125	1.00	0.00
ATOM	1790	N	LYS	2	719	16.600	53.825	31.281	1.00	0.00
ATOM	1791	CA	LYS	2	719	15.978	55.143	31.127	1.00	0.00
ATOM	1792	C	LYS	2	719	15.116	55.591	32.298	1.00	0.00
ATOM	1793	O	LYS	2	719	14.860	56.769	32.528	1.00	0.00
ATOM	1794	CB	LYS	2	719	15.203	55.170	29.795	1.00	0.00
ATOM	1795	CG	LYS	2	719	14.316	56.399	29.533	1.00	0.00
ATOM	1796	CD	LYS	2	719	12.825	56.140	29.783	1.00	0.00
ATOM	1797	CE	LYS	2	719	12.097	57.278	30.510	1.00	0.00
ATOM	1798	NZ	LYS	2	719	12.287	57.178	31.961	1.00	0.00
ATOM	1799	H	LYS	2	719	16.459	53.094	30.614	1.00	0.00
ATOM	1800	1HZ	LYS	2	719	11.773	57.930	32.457	1.00	0.00
ATOM	1801	2HZ	LYS	2	719	11.899	56.285	32.320	1.00	0.00
ATOM	1802	3HZ	LYS	2	719	13.279	57.230	32.264	1.00	0.00
ATOM	1803	N	SER	2	720	14.601	54.601	33.033	1.00	0.00
ATOM	1804	CA	SER	2	720	13.696	54.968	34.121	1.00	0.00
ATOM	1805	C	SER	2	720	14.274	54.812	35.514	1.00	0.00
ATOM	1806	O	SER	2	720	13.766	55.314	36.519	1.00	0.00

ATOM	1807	CB	SER	2	720	12.369	54.265	33.890	1.00	0.00
ATOM	1808	OG	SER	2	720	11.939	54.628	32.565	1.00	0.00
ATOM	1809	H	SER	2	720	14.854	53.650	32.852	1.00	0.00
ATOM	1810	HG	SER	2	720	11.261	53.994	32.333	1.00	0.00
ATOM	1811	N	ASN	2	721	15.456	54.181	35.491	1.00	0.00
ATOM	1812	CA	ASN	2	721	16.316	54.270	36.663	1.00	0.00
ATOM	1813	C	ASN	2	721	16.806	55.701	36.785	1.00	0.00
ATOM	1814	O	ASN	2	721	16.285	56.486	37.582	1.00	0.00
ATOM	1815	CB	ASN	2	721	17.423	53.194	36.601	1.00	0.00
ATOM	1816	CG	ASN	2	721	16.778	51.815	36.660	1.00	0.00
ATOM	1817	OD1	ASN	2	721	15.625	51.687	37.050	1.00	0.00
ATOM	1818	ND2	ASN	2	721	17.510	50.795	36.210	1.00	0.00
ATOM	1819	H	ASN	2	721	15.763	53.733	34.651	1.00	0.00
ATOM	1820	1HD2	ASN	2	721	17.063	49.893	36.173	1.00	0.00
ATOM	1821	2HD2	ASN	2	721	18.448	50.888	35.871	1.00	0.00
ATOM	1822	N	GLU	2	722	17.759	56.025	35.905	1.00	0.00
ATOM	1823	CA	GLU	2	722	18.148	57.403	35.625	1.00	0.00
ATOM	1824	C	GLU	2	722	17.061	58.480	35.773	1.00	0.00
ATOM	1825	O	GLU	2	722	17.243	59.481	36.476	1.00	0.00
ATOM	1826	CB	GLU	2	722	18.828	57.331	34.247	1.00	0.00
ATOM	1827	CG	GLU	2	722	19.229	58.604	33.495	1.00	0.00
ATOM	1828	CD	GLU	2	722	18.030	59.302	32.894	1.00	0.00
ATOM	1829	OE1	GLU	2	722	17.051	58.635	32.577	1.00	0.00
ATOM	1830	OE2	GLU	2	722	18.067	60.519	32.753	1.00	0.00
ATOM	1831	H	GLU	2	722	18.155	55.306	35.343	1.00	0.00
ATOM	1832	N	GLU	2	723	15.909	58.251	35.103	1.00	0.00
ATOM	1833	CA	GLU	2	723	14.983	59.315	34.671	1.00	0.00
ATOM	1834	C	GLU	2	723	15.211	60.748	35.128	1.00	0.00
ATOM	1835	O	GLU	2	723	14.765	61.190	36.190	1.00	0.00
ATOM	1836	CB	GLU	2	723	13.516	58.888	34.817	1.00	0.00
ATOM	1837	CG	GLU	2	723	12.525	59.781	34.037	1.00	0.00
ATOM	1838	CD	GLU	2	723	11.149	59.134	33.883	1.00	0.00
ATOM	1839	OE1	GLU	2	723	11.006	57.952	34.176	1.00	0.00
ATOM	1840	OE2	GLU	2	723	10.217	59.781	33.411	1.00	0.00
ATOM	1841	H	GLU	2	723	15.847	57.345	34.696	1.00	0.00
ATOM	1842	N	GLY	2	724	15.897	61.486	34.249	1.00	0.00
ATOM	1843	CA	GLY	2	724	16.315	62.875	34.483	1.00	0.00
ATOM	1844	C	GLY	2	724	15.229	63.938	34.365	1.00	0.00
ATOM	1845	O	GLY	2	724	15.289	64.893	33.591	1.00	0.00
ATOM	1846	H	GLY	2	724	16.286	60.937	33.503	1.00	0.00
ATOM	1847	N	ILE	2	725	14.201	63.692	35.190	1.00	0.00
ATOM	1848	CA	ILE	2	725	13.028	64.533	35.421	1.00	0.00
ATOM	1849	C	ILE	2	725	12.272	64.001	36.636	1.00	0.00
ATOM	1850	O	ILE	2	725	11.971	64.724	37.578	1.00	0.00
ATOM	1851	CB	ILE	2	725	12.139	64.708	34.166	1.00	0.00
ATOM	1852	CG1	ILE	2	725	10.879	65.526	34.476	1.00	0.00
ATOM	1853	CG2	ILE	2	725	11.773	63.376	33.498	1.00	0.00
ATOM	1854	CD1	ILE	2	725	10.050	65.867	33.237	1.00	0.00
ATOM	1855	H	ILE	2	725	14.356	62.943	35.828	1.00	0.00
ATOM	1856	N	GLN	2	726	12.065	62.667	36.653	1.00	0.00
ATOM	1857	CA	GLN	2	726	11.506	62.025	37.851	1.00	0.00
ATOM	1858	C	GLN	2	726	12.336	62.322	39.100	1.00	0.00
ATOM	1859	O	GLN	2	726	11.862	62.703	40.173	1.00	0.00
ATOM	1860	CB	GLN	2	726	11.389	60.529	37.533	1.00	0.00
ATOM	1861	CG	GLN	2	726	10.910	59.559	38.615	1.00	0.00
ATOM	1862	CD	GLN	2	726	12.014	58.549	38.872	1.00	0.00
ATOM	1863	OE1	GLN	2	726	12.623	58.521	39.938	1.00	0.00
ATOM	1864	NE2	GLN	2	726	12.327	57.777	37.830	1.00	0.00
ATOM	1865	H	GLN	2	726	12.375	62.138	35.864	1.00	0.00
ATOM	1866	1HE2	GLN	2	726	13.137	57.187	37.852	1.00	0.00
ATOM	1867	2HE2	GLN	2	726	11.784	57.787	36.987	1.00	0.00
ATOM	1868	N	ARG	2	727	13.666	62.187	38.878	1.00	0.00
ATOM	1869	CA	ARG	2	727	14.569	62.634	39.941	1.00	0.00
ATOM	1870	C	ARG	2	727	14.462	64.140	40.208	1.00	0.00
ATOM	1871	O	ARG	2	727	13.927	64.564	41.228	1.00	0.00
ATOM	1872	CB	ARG	2	727	16.020	62.156	39.691	1.00	0.00
ATOM	1873	CG	ARG	2	727	16.160	60.626	39.551	1.00	0.00

ATOM	1874	CD	ARG	2	727	17.594	60.048	39.515	1.00	0.00
ATOM	1875	NE	ARG	2	727	17.547	58.600	39.272	1.00	0.00
ATOM	1876	CZ	ARG	2	727	18.563	57.711	39.345	1.00	0.00
ATOM	1877	NH1	ARG	2	727	18.279	56.437	39.205	1.00	0.00
ATOM	1878	NH2	ARG	2	727	19.829	58.046	39.543	1.00	0.00
ATOM	1879	H	ARG	2	727	14.013	61.920	37.975	1.00	0.00
ATOM	1880	HE	ARG	2	727	16.659	58.238	38.960	1.00	0.00
ATOM	1881	1HH1	ARG	2	727	19.002	55.734	39.262	1.00	0.00
ATOM	1882	2HH1	ARG	2	727	17.342	56.136	38.985	1.00	0.00
ATOM	1883	1HH2	ARG	2	727	20.521	57.306	39.498	1.00	0.00
ATOM	1884	2HH2	ARG	2	727	20.131	58.983	39.705	1.00	0.00
ATOM	1885	N	VAL	2	728	14.914	64.913	39.204	1.00	0.00
ATOM	1886	CA	VAL	2	728	15.109	66.361	39.398	1.00	0.00
ATOM	1887	C	VAL	2	728	13.907	67.154	39.927	1.00	0.00
ATOM	1888	O	VAL	2	728	14.000	68.030	40.793	1.00	0.00
ATOM	1889	CB	VAL	2	728	15.628	66.982	38.087	1.00	0.00
ATOM	1890	CG1	VAL	2	728	15.968	68.464	38.248	1.00	0.00
ATOM	1891	CG2	VAL	2	728	16.824	66.208	37.524	1.00	0.00
ATOM	1892	H	VAL	2	728	15.208	64.491	38.349	1.00	0.00
ATOM	1893	N	LEU	2	729	12.763	66.813	39.331	1.00	0.00
ATOM	1894	CA	LEU	2	729	11.544	67.557	39.633	1.00	0.00
ATOM	1895	C	LEU	2	729	10.735	66.977	40.773	1.00	0.00
ATOM	1896	O	LEU	2	729	9.604	67.372	41.053	1.00	0.00
ATOM	1897	CB	LEU	2	729	10.692	67.708	38.370	1.00	0.00
ATOM	1898	CG	LEU	2	729	10.761	69.099	37.728	1.00	0.00
ATOM	1899	CD1	LEU	2	729	12.188	69.568	37.439	1.00	0.00
ATOM	1900	CD2	LEU	2	729	9.883	69.172	36.478	1.00	0.00
ATOM	1901	H	LEU	2	729	12.717	66.033	38.714	1.00	0.00
ATOM	1902	N	THR	2	730	11.354	66.004	41.461	1.00	0.00
ATOM	1903	CA	THR	2	730	10.730	65.799	42.754	1.00	0.00
ATOM	1904	C	THR	2	730	11.425	66.568	43.852	1.00	0.00
ATOM	1905	O	THR	2	730	10.765	67.051	44.761	1.00	0.00
ATOM	1906	CB	THR	2	730	10.544	64.323	43.110	1.00	0.00
ATOM	1907	OG1	THR	2	730	11.735	63.571	42.814	1.00	0.00
ATOM	1908	CG2	THR	2	730	9.350	63.720	42.367	1.00	0.00
ATOM	1909	H	THR	2	730	12.291	65.752	41.231	1.00	0.00
ATOM	1910	HG1	THR	2	730	11.643	63.291	41.899	1.00	0.00
ATOM	1911	N	SER	2	731	12.770	66.688	43.773	1.00	0.00
ATOM	1912	CA	SER	2	731	13.395	67.308	44.955	1.00	0.00
ATOM	1913	C	SER	2	731	14.793	67.903	44.842	1.00	0.00
ATOM	1914	O	SER	2	731	15.588	67.776	45.769	1.00	0.00
ATOM	1915	CB	SER	2	731	13.359	66.334	46.149	1.00	0.00
ATOM	1916	OG	SER	2	731	13.485	64.978	45.677	1.00	0.00
ATOM	1917	H	SER	2	731	13.294	66.366	42.980	1.00	0.00
ATOM	1918	HG	SER	2	731	12.718	64.555	46.067	1.00	0.00
ATOM	1919	N	ASP	2	732	15.096	68.533	43.686	1.00	0.00
ATOM	1920	CA	ASP	2	732	16.363	69.270	43.457	1.00	0.00
ATOM	1921	C	ASP	2	732	17.567	69.022	44.401	1.00	0.00
ATOM	1922	O	ASP	2	732	17.897	69.819	45.287	1.00	0.00
ATOM	1923	CB	ASP	2	732	16.047	70.765	43.249	1.00	0.00
ATOM	1924	CG	ASP	2	732	15.749	71.502	44.547	1.00	0.00
ATOM	1925	OD1	ASP	2	732	16.311	72.575	44.758	1.00	0.00
ATOM	1926	OD2	ASP	2	732	14.997	71.004	45.384	1.00	0.00
ATOM	1927	H	ASP	2	732	14.421	68.545	42.944	1.00	0.00
ATOM	1928	N	TYR	2	733	18.221	67.833	44.269	1.00	0.00
ATOM	1929	CA	TYR	2	733	18.285	66.865	43.151	1.00	0.00
ATOM	1930	C	TYR	2	733	18.880	67.408	41.867	1.00	0.00
ATOM	1931	O	TYR	2	733	18.205	67.881	40.953	1.00	0.00
ATOM	1932	CB	TYR	2	733	17.014	66.027	42.878	1.00	0.00
ATOM	1933	CG	TYR	2	733	16.822	64.878	43.852	1.00	0.00
ATOM	1934	CD1	TYR	2	733	16.560	63.597	43.322	1.00	0.00
ATOM	1935	CD2	TYR	2	733	16.886	65.095	45.244	1.00	0.00
ATOM	1936	CE1	TYR	2	733	16.364	62.514	44.197	1.00	0.00
ATOM	1937	CE2	TYR	2	733	16.683	64.016	46.120	1.00	0.00
ATOM	1938	CZ	TYR	2	733	16.439	62.732	45.587	1.00	0.00
ATOM	1939	OH	TYR	2	733	16.300	61.659	46.460	1.00	0.00
ATOM	1940	H	TYR	2	733	18.852	67.729	45.033	1.00	0.00

ATOM	1941	HH	TYR	2	733	16.619	61.979	47.309	1.00	0.00
ATOM	1942	N	ALA	2	734	20.218	67.306	41.907	1.00	0.00
ATOM	1943	CA	ALA	2	734	21.077	67.590	40.769	1.00	0.00
ATOM	1944	C	ALA	2	734	21.526	66.261	40.227	1.00	0.00
ATOM	1945	O	ALA	2	734	21.637	65.289	40.974	1.00	0.00
ATOM	1946	CB	ALA	2	734	22.323	68.340	41.231	1.00	0.00
ATOM	1947	H	ALA	2	734	20.603	66.800	42.673	1.00	0.00
ATOM	1948	N	PHE	2	735	21.785	66.235	38.924	1.00	0.00
ATOM	1949	CA	PHE	2	735	21.983	64.948	38.255	1.00	0.00
ATOM	1950	C	PHE	2	735	23.196	65.001	37.346	1.00	0.00
ATOM	1951	O	PHE	2	735	23.471	66.067	36.806	1.00	0.00
ATOM	1952	CB	PHE	2	735	20.686	64.637	37.501	1.00	0.00
ATOM	1953	CG	PHE	2	735	20.576	63.197	37.066	1.00	0.00
ATOM	1954	CD1	PHE	2	735	20.179	62.924	35.740	1.00	0.00
ATOM	1955	CD2	PHE	2	735	20.835	62.157	37.984	1.00	0.00
ATOM	1956	CE1	PHE	2	735	20.007	61.589	35.336	1.00	0.00
ATOM	1957	CE2	PHE	2	735	20.667	60.821	37.579	1.00	0.00
ATOM	1958	CZ	PHE	2	735	20.241	60.553	36.264	1.00	0.00
ATOM	1959	H	PHE	2	735	21.748	67.124	38.467	1.00	0.00
ATOM	1960	N	LEU	2	736	23.917	63.884	37.221	1.00	0.00
ATOM	1961	CA	LEU	2	736	25.170	63.983	36.474	1.00	0.00
ATOM	1962	C	LEU	2	736	25.212	63.021	35.306	1.00	0.00
ATOM	1963	O	LEU	2	736	24.709	61.897	35.394	1.00	0.00
ATOM	1964	CB	LEU	2	736	26.379	63.709	37.373	1.00	0.00
ATOM	1965	CG	LEU	2	736	26.969	64.904	38.129	1.00	0.00
ATOM	1966	CD1	LEU	2	736	26.018	65.519	39.151	1.00	0.00
ATOM	1967	CD2	LEU	2	736	28.295	64.534	38.789	1.00	0.00
ATOM	1968	H	LEU	2	736	23.651	63.035	37.662	1.00	0.00
ATOM	1969	N	MET	2	737	25.838	63.500	34.214	1.00	0.00
ATOM	1970	CA	MET	2	737	26.210	62.671	33.054	1.00	0.00
ATOM	1971	C	MET	2	737	27.184	63.399	32.118	1.00	0.00
ATOM	1972	O	MET	2	737	27.359	64.619	32.122	1.00	0.00
ATOM	1973	CB	MET	2	737	24.980	62.158	32.270	1.00	0.00
ATOM	1974	CG	MET	2	737	25.179	60.877	31.445	1.00	0.00
ATOM	1975	SD	MET	2	737	24.226	60.767	29.910	1.00	0.00
ATOM	1976	CE	MET	2	737	22.550	60.897	30.552	1.00	0.00
ATOM	1977	H	MET	2	737	26.069	64.478	34.197	1.00	0.00
ATOM	1978	N	GLU	2	738	27.863	62.582	31.307	1.00	0.00
ATOM	1979	CA	GLU	2	738	28.806	63.117	30.338	1.00	0.00
ATOM	1980	C	GLU	2	738	28.153	63.638	29.056	1.00	0.00
ATOM	1981	O	GLU	2	738	27.851	64.825	28.907	1.00	0.00
ATOM	1982	CB	GLU	2	738	29.903	62.067	30.117	1.00	0.00
ATOM	1983	CG	GLU	2	738	30.615	61.662	31.418	1.00	0.00
ATOM	1984	CD	GLU	2	738	31.354	60.340	31.264	1.00	0.00
ATOM	1985	OE1	GLU	2	738	30.855	59.317	31.696	1.00	0.00
ATOM	1986	OE2	GLU	2	738	32.430	60.286	30.697	1.00	0.00
ATOM	1987	H	GLU	2	738	27.597	61.625	31.323	1.00	0.00
ATOM	1988	N	SER	2	739	27.943	62.706	28.118	1.00	0.00
ATOM	1989	CA	SER	2	739	27.403	63.116	26.825	1.00	0.00
ATOM	1990	C	SER	2	739	25.943	63.550	26.853	1.00	0.00
ATOM	1991	O	SER	2	739	25.594	64.736	26.922	1.00	0.00
ATOM	1992	CB	SER	2	739	27.625	62.014	25.785	1.00	0.00
ATOM	1993	OG	SER	2	739	28.729	61.156	26.144	1.00	0.00
ATOM	1994	H	SER	2	739	28.181	61.749	28.262	1.00	0.00
ATOM	1995	HG	SER	2	739	29.161	60.908	25.325	1.00	0.00
ATOM	1996	N	THR	2	740	25.062	62.549	26.830	1.00	0.00
ATOM	1997	CA	THR	2	740	23.662	62.894	26.716	1.00	0.00
ATOM	1998	C	THR	2	740	22.988	63.536	27.918	1.00	0.00
ATOM	1999	O	THR	2	740	21.771	63.730	27.920	1.00	0.00
ATOM	2000	CB	THR	2	740	22.888	61.689	26.188	1.00	0.00
ATOM	2001	OG1	THR	2	740	23.581	60.450	26.471	1.00	0.00
ATOM	2002	CG2	THR	2	740	22.568	61.862	24.703	1.00	0.00
ATOM	2003	H	THR	2	740	25.357	61.611	26.683	1.00	0.00
ATOM	2004	HG1	THR	2	740	23.522	60.384	27.426	1.00	0.00
ATOM	2005	N	THR	2	741	23.772	63.917	28.948	1.00	0.00
ATOM	2006	CA	THR	2	741	23.120	64.801	29.924	1.00	0.00
ATOM	2007	C	THR	2	741	22.608	66.102	29.346	1.00	0.00

ATOM	2008	O	THR	2	741	21.622	66.673	29.815	1.00	0.00
ATOM	2009	CB	THR	2	741	23.957	65.101	31.164	1.00	0.00
ATOM	2010	OG1	THR	2	741	23.113	65.508	32.262	1.00	0.00
ATOM	2011	CG2	THR	2	741	25.062	66.113	30.886	1.00	0.00
ATOM	2012	H	THR	2	741	24.717	63.587	29.019	1.00	0.00
ATOM	2013	HG1	THR	2	741	22.789	66.381	32.047	1.00	0.00
ATOM	2014	N	ILE	2	742	23.294	66.543	28.276	1.00	0.00
ATOM	2015	CA	ILE	2	742	22.585	67.492	27.439	1.00	0.00
ATOM	2016	C	ILE	2	742	21.449	66.769	26.707	1.00	0.00
ATOM	2017	O	ILE	2	742	20.472	66.452	27.382	1.00	0.00
ATOM	2018	CB	ILE	2	742	23.576	68.377	26.649	1.00	0.00
ATOM	2019	CG1	ILE	2	742	22.895	69.467	25.815	1.00	0.00
ATOM	2020	CG2	ILE	2	742	24.599	67.559	25.845	1.00	0.00
ATOM	2021	CD1	ILE	2	742	23.885	70.469	25.217	1.00	0.00
ATOM	2022	H	ILE	2	742	24.127	66.076	27.988	1.00	0.00
ATOM	2023	N	GLU	2	743	21.553	66.470	25.397	1.00	0.00
ATOM	2024	CA	GLU	2	743	20.388	65.938	24.666	1.00	0.00
ATOM	2025	C	GLU	2	743	19.367	65.096	25.435	1.00	0.00
ATOM	2026	O	GLU	2	743	18.205	65.475	25.589	1.00	0.00
ATOM	2027	CB	GLU	2	743	20.758	65.189	23.370	1.00	0.00
ATOM	2028	CG	GLU	2	743	22.028	65.570	22.592	1.00	0.00
ATOM	2029	CD	GLU	2	743	22.174	67.069	22.420	1.00	0.00
ATOM	2030	OE1	GLU	2	743	21.469	67.690	21.632	1.00	0.00
ATOM	2031	OE2	GLU	2	743	23.020	67.637	23.091	1.00	0.00
ATOM	2032	H	GLU	2	743	22.351	66.762	24.869	1.00	0.00
ATOM	2033	N	PHE	2	744	19.826	63.932	25.952	1.00	0.00
ATOM	2034	CA	PHE	2	744	18.873	63.053	26.654	1.00	0.00
ATOM	2035	C	PHE	2	744	18.194	63.689	27.860	1.00	0.00
ATOM	2036	O	PHE	2	744	16.974	63.703	28.005	1.00	0.00
ATOM	2037	CB	PHE	2	744	19.524	61.713	27.036	1.00	0.00
ATOM	2038	CG	PHE	2	744	18.532	60.701	27.566	1.00	0.00
ATOM	2039	CD1	PHE	2	744	17.975	59.756	26.678	1.00	0.00
ATOM	2040	CD2	PHE	2	744	18.183	60.712	28.935	1.00	0.00
ATOM	2041	CE1	PHE	2	744	17.037	58.824	27.161	1.00	0.00
ATOM	2042	CE2	PHE	2	744	17.245	59.781	29.419	1.00	0.00
ATOM	2043	CZ	PHE	2	744	16.677	58.852	28.524	1.00	0.00
ATOM	2044	H	PHE	2	744	20.816	63.780	25.949	1.00	0.00
ATOM	2045	N	VAL	2	745	19.023	64.255	28.739	1.00	0.00
ATOM	2046	CA	VAL	2	745	18.406	64.895	29.902	1.00	0.00
ATOM	2047	C	VAL	2	745	17.830	66.280	29.594	1.00	0.00
ATOM	2048	O	VAL	2	745	17.239	66.943	30.433	1.00	0.00
ATOM	2049	CB	VAL	2	745	19.381	64.871	31.102	1.00	0.00
ATOM	2050	CG1	VAL	2	745	18.799	65.384	32.425	1.00	0.00
ATOM	2051	CG2	VAL	2	745	19.896	63.446	31.308	1.00	0.00
ATOM	2052	H	VAL	2	745	20.008	64.255	28.573	1.00	0.00
ATOM	2053	N	THR	2	746	17.965	66.721	28.338	1.00	0.00
ATOM	2054	CA	THR	2	746	17.484	68.088	28.135	1.00	0.00
ATOM	2055	C	THR	2	746	16.289	68.254	27.201	1.00	0.00
ATOM	2056	O	THR	2	746	15.588	69.267	27.157	1.00	0.00
ATOM	2057	CB	THR	2	746	18.664	69.021	27.841	1.00	0.00
ATOM	2058	OG1	THR	2	746	18.511	70.236	28.580	1.00	0.00
ATOM	2059	CG2	THR	2	746	18.912	69.297	26.353	1.00	0.00
ATOM	2060	H	THR	2	746	18.415	66.193	27.617	1.00	0.00
ATOM	2061	HG1	THR	2	746	18.091	70.008	29.415	1.00	0.00
ATOM	2062	N	GLN	2	747	16.042	67.136	26.501	1.00	0.00
ATOM	2063	CA	GLN	2	747	14.660	66.889	26.110	1.00	0.00
ATOM	2064	C	GLN	2	747	13.847	66.563	27.363	1.00	0.00
ATOM	2065	O	GLN	2	747	12.682	66.903	27.529	1.00	0.00
ATOM	2066	CB	GLN	2	747	14.657	65.735	25.108	1.00	0.00
ATOM	2067	CG	GLN	2	747	15.551	65.970	23.883	1.00	0.00
ATOM	2068	CD	GLN	2	747	16.083	64.649	23.344	1.00	0.00
ATOM	2069	OE1	GLN	2	747	15.480	63.584	23.456	1.00	0.00
ATOM	2070	NE2	GLN	2	747	17.269	64.751	22.751	1.00	0.00
ATOM	2071	H	GLN	2	747	16.693	66.379	26.556	1.00	0.00
ATOM	2072	1HE2	GLN	2	747	17.716	63.990	22.281	1.00	0.00
ATOM	2073	2HE2	GLN	2	747	17.739	65.635	22.771	1.00	0.00
ATOM	2074	N	ARG	2	748	14.564	65.901	28.288	1.00	0.00

ATOM	2075	CA	ARG	2	748	13.916	65.536	29.548	1.00	0.00
ATOM	2076	C	ARG	2	748	13.769	66.610	30.631	1.00	0.00
ATOM	2077	O	ARG	2	748	12.900	66.488	31.499	1.00	0.00
ATOM	2078	CB	ARG	2	748	14.532	64.241	30.093	1.00	0.00
ATOM	2079	CG	ARG	2	748	13.731	62.970	29.759	1.00	0.00
ATOM	2080	CD	ARG	2	748	13.480	62.667	28.271	1.00	0.00
ATOM	2081	NE	ARG	2	748	14.703	62.318	27.547	1.00	0.00
ATOM	2082	CZ	ARG	2	748	14.749	62.301	26.194	1.00	0.00
ATOM	2083	NH1	ARG	2	748	15.865	61.942	25.582	1.00	0.00
ATOM	2084	NH2	ARG	2	748	13.706	62.663	25.454	1.00	0.00
ATOM	2085	H	ARG	2	748	15.528	65.682	28.143	1.00	0.00
ATOM	2086	HE	ARG	2	748	15.537	62.117	28.073	1.00	0.00
ATOM	2087	1HH1	ARG	2	748	16.654	61.622	26.104	1.00	0.00
ATOM	2088	2HH1	ARG	2	748	15.943	61.981	24.582	1.00	0.00
ATOM	2089	1HH2	ARG	2	748	13.829	62.798	24.462	1.00	0.00
ATOM	2090	2HH2	ARG	2	748	12.800	62.832	25.844	1.00	0.00
ATOM	2091	N	ASN	2	749	14.582	67.690	30.551	1.00	0.00
ATOM	2092	CA	ASN	2	749	14.419	68.698	31.616	1.00	0.00
ATOM	2093	C	ASN	2	749	14.864	70.147	31.372	1.00	0.00
ATOM	2094	O	ASN	2	749	15.126	70.888	32.330	1.00	0.00
ATOM	2095	CB	ASN	2	749	15.013	68.174	32.941	1.00	0.00
ATOM	2096	CG	ASN	2	749	14.174	68.558	34.157	1.00	0.00
ATOM	2097	OD1	ASN	2	749	14.684	68.984	35.189	1.00	0.00
ATOM	2098	ND2	ASN	2	749	12.859	68.334	34.009	1.00	0.00
ATOM	2099	H	ASN	2	749	15.428	67.595	30.033	1.00	0.00
ATOM	2100	1HD2	ASN	2	749	12.213	68.537	34.744	1.00	0.00
ATOM	2101	2HD2	ASN	2	749	12.501	67.900	33.178	1.00	0.00
ATOM	2102	N	CYS	2	750	14.929	70.515	30.063	1.00	0.00
ATOM	2103	CA	CYS	2	750	15.353	71.842	29.559	1.00	0.00
ATOM	2104	C	CYS	2	750	16.754	72.214	30.008	1.00	0.00
ATOM	2105	O	CYS	2	750	17.281	71.474	30.825	1.00	0.00
ATOM	2106	CB	CYS	2	750	14.327	72.947	29.862	1.00	0.00
ATOM	2107	SG	CYS	2	750	14.008	73.318	31.608	1.00	0.00
ATOM	2108	H	CYS	2	750	14.736	69.789	29.409	1.00	0.00
ATOM	2109	N	ASN	2	751	17.373	73.299	29.496	1.00	0.00
ATOM	2110	CA	ASN	2	751	18.755	73.443	29.989	1.00	0.00
ATOM	2111	C	ASN	2	751	18.910	73.690	31.488	1.00	0.00
ATOM	2112	O	ASN	2	751	18.057	74.318	32.118	1.00	0.00
ATOM	2113	CB	ASN	2	751	19.631	74.354	29.103	1.00	0.00
ATOM	2114	CG	ASN	2	751	19.558	75.866	29.316	1.00	0.00
ATOM	2115	OD1	ASN	2	751	20.341	76.610	28.728	1.00	0.00
ATOM	2116	ND2	ASN	2	751	18.603	76.367	30.116	1.00	0.00
ATOM	2117	H	ASN	2	751	16.944	73.882	28.804	1.00	0.00
ATOM	2118	1HD2	ASN	2	751	18.447	77.351	30.204	1.00	0.00
ATOM	2119	2HD2	ASN	2	751	18.055	75.782	30.720	1.00	0.00
ATOM	2120	N	LEU	2	752	20.007	73.125	32.032	1.00	0.00
ATOM	2121	CA	LEU	2	752	20.141	72.949	33.484	1.00	0.00
ATOM	2122	C	LEU	2	752	21.527	72.452	33.886	1.00	0.00
ATOM	2123	O	LEU	2	752	21.851	71.270	33.729	1.00	0.00
ATOM	2124	CB	LEU	2	752	19.003	72.060	34.055	1.00	0.00
ATOM	2125	CG	LEU	2	752	18.994	70.527	33.857	1.00	0.00
ATOM	2126	CD1	LEU	2	752	17.750	69.906	34.468	1.00	0.00
ATOM	2127	CD2	LEU	2	752	19.153	70.020	32.428	1.00	0.00
ATOM	2128	H	LEU	2	752	20.716	72.756	31.430	1.00	0.00
ATOM	2129	N	THR	2	753	22.342	73.422	34.335	1.00	0.00
ATOM	2130	CA	THR	2	753	23.720	73.145	34.742	1.00	0.00
ATOM	2131	C	THR	2	753	24.437	74.405	35.197	1.00	0.00
ATOM	2132	O	THR	2	753	24.337	75.457	34.562	1.00	0.00
ATOM	2133	CB	THR	2	753	24.496	72.422	33.616	1.00	0.00
ATOM	2134	OG1	THR	2	753	25.563	71.627	34.148	1.00	0.00
ATOM	2135	CG2	THR	2	753	24.958	73.296	32.444	1.00	0.00
ATOM	2136	H	THR	2	753	21.937	74.302	34.570	1.00	0.00
ATOM	2137	HG1	THR	2	753	26.352	72.150	34.012	1.00	0.00
ATOM	2138	N	GLN	2	754	25.168	74.265	36.306	1.00	0.00
ATOM	2139	CA	GLN	2	754	26.176	75.272	36.621	1.00	0.00
ATOM	2140	C	GLN	2	754	27.561	74.713	36.365	1.00	0.00
ATOM	2141	O	GLN	2	754	28.151	74.021	37.201	1.00	0.00

ATOM	2142	CB	GLN	2	754	26.032	75.751	38.070	1.00	0.00
ATOM	2143	CG	GLN	2	754	26.937	76.912	38.497	1.00	0.00
ATOM	2144	CD	GLN	2	754	26.102	78.117	38.892	1.00	0.00
ATOM	2145	OE1	GLN	2	754	26.027	79.114	38.182	1.00	0.00
ATOM	2146	NE2	GLN	2	754	25.489	78.023	40.071	1.00	0.00
ATOM	2147	H	GLN	2	754	25.119	73.387	36.772	1.00	0.00
ATOM	2148	1HE2	GLN	2	754	24.959	78.793	40.428	1.00	0.00
ATOM	2149	2HE2	GLN	2	754	25.626	77.181	40.590	1.00	0.00
ATOM	2150	N	ILE	2	755	28.052	75.038	35.162	1.00	0.00
ATOM	2151	CA	ILE	2	755	29.424	74.754	34.729	1.00	0.00
ATOM	2152	C	ILE	2	755	29.804	73.288	34.513	1.00	0.00
ATOM	2153	O	ILE	2	755	30.156	72.905	33.402	1.00	0.00
ATOM	2154	CB	ILE	2	755	30.455	75.520	35.587	1.00	0.00
ATOM	2155	CG1	ILE	2	755	30.103	77.013	35.575	1.00	0.00
ATOM	2156	CG2	ILE	2	755	31.885	75.312	35.065	1.00	0.00
ATOM	2157	CD1	ILE	2	755	31.004	77.872	36.465	1.00	0.00
ATOM	2158	H	ILE	2	755	27.460	75.630	34.619	1.00	0.00
ATOM	2159	N	GLY	2	756	29.744	72.477	35.572	1.00	0.00
ATOM	2160	CA	GLY	2	756	30.204	71.093	35.437	1.00	0.00
ATOM	2161	C	GLY	2	756	31.683	70.913	35.739	1.00	0.00
ATOM	2162	O	GLY	2	756	32.291	71.728	36.439	1.00	0.00
ATOM	2163	H	GLY	2	756	29.447	72.849	36.443	1.00	0.00
ATOM	2164	N	GLY	2	757	32.220	69.807	35.159	1.00	0.00
ATOM	2165	CA	GLY	2	757	33.666	69.523	35.106	1.00	0.00
ATOM	2166	C	GLY	2	757	33.988	68.113	34.584	1.00	0.00
ATOM	2167	O	GLY	2	757	33.185	67.193	34.722	1.00	0.00
ATOM	2168	H	GLY	2	757	31.592	69.124	34.785	1.00	0.00
ATOM	2169	N	LEU	2	758	35.181	67.942	33.978	1.00	0.00
ATOM	2170	CA	LEU	2	758	35.500	66.643	33.339	1.00	0.00
ATOM	2171	C	LEU	2	758	35.430	65.382	34.215	1.00	0.00
ATOM	2172	O	LEU	2	758	35.250	65.510	35.435	1.00	0.00
ATOM	2173	CB	LEU	2	758	36.821	66.747	32.558	1.00	0.00
ATOM	2174	CG	LEU	2	758	38.050	67.267	33.321	1.00	0.00
ATOM	2175	CD1	LEU	2	758	38.634	66.265	34.321	1.00	0.00
ATOM	2176	CD2	LEU	2	758	39.123	67.755	32.346	1.00	0.00
ATOM	2177	H	LEU	2	758	35.844	68.688	34.033	1.00	0.00
ATOM	2178	N	ILE	2	759	35.552	64.196	33.538	1.00	0.00
ATOM	2179	CA	ILE	2	759	35.527	62.876	34.205	1.00	0.00
ATOM	2180	C	ILE	2	759	35.851	61.614	33.344	1.00	0.00
ATOM	2181	O	ILE	2	759	36.066	61.666	32.129	1.00	0.00
ATOM	2182	CB	ILE	2	759	34.186	62.743	34.960	1.00	0.00
ATOM	2183	CG1	ILE	2	759	34.303	62.167	36.377	1.00	0.00
ATOM	2184	CG2	ILE	2	759	33.141	62.004	34.111	1.00	0.00
ATOM	2185	CD1	ILE	2	759	35.244	62.926	37.313	1.00	0.00
ATOM	2186	H	ILE	2	759	35.566	64.242	32.538	1.00	0.00
ATOM	2187	N	ASP	2	760	35.866	60.447	34.040	1.00	0.00
ATOM	2188	CA	ASP	2	760	35.674	59.054	33.573	1.00	0.00
ATOM	2189	C	ASP	2	760	35.865	58.598	32.139	1.00	0.00
ATOM	2190	O	ASP	2	760	36.900	58.054	31.758	1.00	0.00
ATOM	2191	CB	ASP	2	760	34.320	58.464	33.983	1.00	0.00
ATOM	2192	CG	ASP	2	760	34.146	58.398	35.468	1.00	0.00
ATOM	2193	OD1	ASP	2	760	33.427	59.239	35.984	1.00	0.00
ATOM	2194	OD2	ASP	2	760	34.702	57.499	36.089	1.00	0.00
ATOM	2195	H	ASP	2	760	36.005	60.544	35.024	1.00	0.00
ATOM	2196	N	SER	2	761	34.781	58.712	31.355	1.00	0.00
ATOM	2197	CA	SER	2	761	34.870	57.991	30.091	1.00	0.00
ATOM	2198	C	SER	2	761	35.330	58.809	28.909	1.00	0.00
ATOM	2199	O	SER	2	761	36.448	58.642	28.416	1.00	0.00
ATOM	2200	CB	SER	2	761	33.607	57.165	29.783	1.00	0.00
ATOM	2201	OG	SER	2	761	33.504	56.001	30.635	1.00	0.00
ATOM	2202	H	SER	2	761	33.982	59.245	31.632	1.00	0.00
ATOM	2203	HG	SER	2	761	33.635	56.340	31.520	1.00	0.00
ATOM	2204	N	LYS	2	762	34.414	59.675	28.443	1.00	0.00
ATOM	2205	CA	LYS	2	762	34.645	60.272	27.133	1.00	0.00
ATOM	2206	C	LYS	2	762	35.799	61.249	27.035	1.00	0.00
ATOM	2207	O	LYS	2	762	35.691	62.448	27.314	1.00	0.00
ATOM	2208	CB	LYS	2	762	33.347	60.851	26.550	1.00	0.00

ATOM	2209	CG	LYS	2	762	32.198	59.832	26.471	1.00	0.00
ATOM	2210	CD	LYS	2	762	31.309	59.814	27.712	1.00	0.00
ATOM	2211	CE	LYS	2	762	30.602	58.487	27.994	1.00	0.00
ATOM	2212	NZ	LYS	2	762	29.792	58.618	29.209	1.00	0.00
ATOM	2213	H	LYS	2	762	33.637	59.943	29.010	1.00	0.00
ATOM	2214	1HZ	LYS	2	762	29.323	57.725	29.446	1.00	0.00
ATOM	2215	2HZ	LYS	2	762	30.361	58.902	30.035	1.00	0.00
ATOM	2216	3HZ	LYS	2	762	29.062	59.335	29.050	1.00	0.00
ATOM	2217	N	GLY	2	763	36.894	60.668	26.554	1.00	0.00
ATOM	2218	CA	GLY	2	763	38.052	61.440	26.160	1.00	0.00
ATOM	2219	C	GLY	2	763	38.838	60.554	25.233	1.00	0.00
ATOM	2220	O	GLY	2	763	39.038	60.839	24.051	1.00	0.00
ATOM	2221	H	GLY	2	763	36.875	59.667	26.526	1.00	0.00
ATOM	2222	N	TYR	2	764	39.241	59.457	25.865	1.00	0.00
ATOM	2223	CA	TYR	2	764	39.661	58.316	25.088	1.00	0.00
ATOM	2224	C	TYR	2	764	38.429	57.738	24.397	1.00	0.00
ATOM	2225	O	TYR	2	764	37.342	57.636	24.972	1.00	0.00
ATOM	2226	CB	TYR	2	764	40.345	57.331	26.054	1.00	0.00
ATOM	2227	CG	TYR	2	764	41.509	57.930	26.854	1.00	0.00
ATOM	2228	CD1	TYR	2	764	42.163	59.116	26.450	1.00	0.00
ATOM	2229	CD2	TYR	2	764	41.943	57.243	28.006	1.00	0.00
ATOM	2230	CE1	TYR	2	764	43.290	59.579	27.151	1.00	0.00
ATOM	2231	CE2	TYR	2	764	43.060	57.712	28.725	1.00	0.00
ATOM	2232	CZ	TYR	2	764	43.746	58.855	28.267	1.00	0.00
ATOM	2233	OH	TYR	2	764	44.911	59.259	28.903	1.00	0.00
ATOM	2234	H	TYR	2	764	38.917	59.300	26.793	1.00	0.00
ATOM	2235	HH	TYR	2	764	44.815	59.126	29.847	1.00	0.00
ATOM	2236	N	GLY	2	765	38.637	57.394	23.117	1.00	0.00
ATOM	2237	CA	GLY	2	765	37.504	56.837	22.378	1.00	0.00
ATOM	2238	C	GLY	2	765	37.849	55.723	21.415	1.00	0.00
ATOM	2239	O	GLY	2	765	37.104	54.780	21.164	1.00	0.00
ATOM	2240	H	GLY	2	765	39.422	57.835	22.683	1.00	0.00
ATOM	2241	N	VAL	2	766	39.041	55.863	20.824	1.00	0.00
ATOM	2242	CA	VAL	2	766	39.434	54.760	19.957	1.00	0.00
ATOM	2243	C	VAL	2	766	40.371	53.807	20.678	1.00	0.00
ATOM	2244	O	VAL	2	766	41.218	54.266	21.445	1.00	0.00
ATOM	2245	CB	VAL	2	766	39.991	55.287	18.623	1.00	0.00
ATOM	2246	CG1	VAL	2	766	39.949	54.221	17.529	1.00	0.00
ATOM	2247	CG2	VAL	2	766	39.241	56.530	18.138	1.00	0.00
ATOM	2248	H	VAL	2	766	39.675	56.581	21.101	1.00	0.00
ATOM	2249	N	GLY	2	767	40.156	52.495	20.416	1.00	0.00
ATOM	2250	CA	GLY	2	767	40.852	51.410	21.130	1.00	0.00
ATOM	2251	C	GLY	2	767	41.793	50.539	20.315	1.00	0.00
ATOM	2252	O	GLY	2	767	41.775	50.586	19.081	1.00	0.00
ATOM	2253	H	GLY	2	767	39.442	52.282	19.748	1.00	0.00
ATOM	2254	N	THR	2	768	42.640	49.785	21.069	1.00	0.00
ATOM	2255	CA	THR	2	768	43.720	48.849	20.664	1.00	0.00
ATOM	2256	C	THR	2	768	44.875	48.722	21.666	1.00	0.00
ATOM	2257	O	THR	2	768	45.870	49.461	21.595	1.00	0.00
ATOM	2258	CB	THR	2	768	44.307	49.089	19.250	1.00	0.00
ATOM	2259	OG1	THR	2	768	45.303	48.100	18.896	1.00	0.00
ATOM	2260	CG2	THR	2	768	44.863	50.501	19.059	1.00	0.00
ATOM	2261	H	THR	2	768	42.259	49.731	21.992	1.00	0.00
ATOM	2262	HG1	THR	2	768	45.984	48.120	19.575	1.00	0.00
ATOM	2263	N	PRO	2	769	44.724	47.716	22.574	1.00	0.00
ATOM	2264	CA	PRO	2	769	45.762	47.470	23.589	1.00	0.00
ATOM	2265	C	PRO	2	769	47.148	47.372	22.983	1.00	0.00
ATOM	2266	O	PRO	2	769	47.287	46.972	21.828	1.00	0.00
ATOM	2267	CB	PRO	2	769	45.305	46.164	24.242	1.00	0.00
ATOM	2268	CG	PRO	2	769	43.793	46.138	24.044	1.00	0.00
ATOM	2269	CD	PRO	2	769	43.614	46.771	22.670	1.00	0.00
ATOM	2270	N	MET	2	770	48.161	47.804	23.769	1.00	0.00
ATOM	2271	CA	MET	2	770	49.582	47.836	23.363	1.00	0.00
ATOM	2272	C	MET	2	770	49.928	47.469	21.914	1.00	0.00
ATOM	2273	O	MET	2	770	50.042	48.361	21.069	1.00	0.00
ATOM	2274	CB	MET	2	770	50.448	47.099	24.390	1.00	0.00
ATOM	2275	CG	MET	2	770	50.262	47.654	25.805	1.00	0.00

ATOM	2276	SD	MET	2	770	51.304	46.835	27.023	1.00	0.00
ATOM	2277	CE	MET	2	770	52.892	47.489	26.485	1.00	0.00
ATOM	2278	H	MET	2	770	47.873	48.164	24.657	1.00	0.00
ATOM	2279	N	GLY	2	771	50.006	46.151	21.646	1.00	0.00
ATOM	2280	CA	GLY	2	771	49.730	45.592	20.313	1.00	0.00
ATOM	2281	C	GLY	2	771	50.529	45.997	19.077	1.00	0.00
ATOM	2282	O	GLY	2	771	51.738	45.775	18.983	1.00	0.00
ATOM	2283	H	GLY	2	771	49.961	45.566	22.453	1.00	0.00
ATOM	2284	N	SER	2	772	49.736	46.517	18.122	1.00	0.00
ATOM	2285	CA	SER	2	772	50.110	46.471	16.706	1.00	0.00
ATOM	2286	C	SER	2	772	50.052	47.861	16.037	1.00	0.00
ATOM	2287	O	SER	2	772	49.698	48.841	16.692	1.00	0.00
ATOM	2288	CB	SER	2	772	49.158	45.452	16.055	1.00	0.00
ATOM	2289	OG	SER	2	772	48.940	44.292	16.881	1.00	0.00
ATOM	2290	H	SER	2	772	48.806	46.813	18.342	1.00	0.00
ATOM	2291	HG	SER	2	772	48.031	44.368	17.188	1.00	0.00
ATOM	2292	N	PRO	2	773	50.425	47.983	14.720	1.00	0.00
ATOM	2293	CA	PRO	2	773	50.177	49.261	14.018	1.00	0.00
ATOM	2294	C	PRO	2	773	48.694	49.567	13.807	1.00	0.00
ATOM	2295	O	PRO	2	773	47.992	48.991	12.965	1.00	0.00
ATOM	2296	CB	PRO	2	773	50.963	49.091	12.713	1.00	0.00
ATOM	2297	CG	PRO	2	773	51.007	47.586	12.465	1.00	0.00
ATOM	2298	CD	PRO	2	773	51.137	47.024	13.874	1.00	0.00
ATOM	2299	N	TYR	2	774	48.242	50.469	14.681	1.00	0.00
ATOM	2300	CA	TYR	2	774	46.850	50.529	15.107	1.00	0.00
ATOM	2301	C	TYR	2	774	46.548	51.845	15.796	1.00	0.00
ATOM	2302	O	TYR	2	774	45.652	52.588	15.396	1.00	0.00
ATOM	2303	CB	TYR	2	774	46.568	49.426	16.128	1.00	0.00
ATOM	2304	CG	TYR	2	774	45.794	48.245	15.601	1.00	0.00
ATOM	2305	CD1	TYR	2	774	46.507	47.152	15.085	1.00	0.00
ATOM	2306	CD2	TYR	2	774	44.389	48.240	15.694	1.00	0.00
ATOM	2307	CE1	TYR	2	774	45.806	45.999	14.712	1.00	0.00
ATOM	2308	CE2	TYR	2	774	43.679	47.094	15.308	1.00	0.00
ATOM	2309	CZ	TYR	2	774	44.404	45.989	14.824	1.00	0.00
ATOM	2310	OH	TYR	2	774	43.731	44.854	14.416	1.00	0.00
ATOM	2311	H	TYR	2	774	48.939	51.149	14.946	1.00	0.00
ATOM	2312	HH	TYR	2	774	42.894	44.804	14.885	1.00	0.00
ATOM	2313	N	ARG	2	775	47.291	52.022	16.904	1.00	0.00
ATOM	2314	CA	ARG	2	775	47.038	53.181	17.763	1.00	0.00
ATOM	2315	C	ARG	2	775	47.656	54.447	17.230	1.00	0.00
ATOM	2316	O	ARG	2	775	47.194	55.563	17.424	1.00	0.00
ATOM	2317	CB	ARG	2	775	47.499	52.901	19.188	1.00	0.00
ATOM	2318	CG	ARG	2	775	46.957	53.868	20.249	1.00	0.00
ATOM	2319	CD	ARG	2	775	47.185	53.387	21.687	1.00	0.00
ATOM	2320	NE	ARG	2	775	48.606	53.258	21.995	1.00	0.00
ATOM	2321	CZ	ARG	2	775	49.263	52.099	21.810	1.00	0.00
ATOM	2322	NH1	ARG	2	775	50.585	52.115	21.743	1.00	0.00
ATOM	2323	NH2	ARG	2	775	48.592	50.952	21.671	1.00	0.00
ATOM	2324	H	ARG	2	775	48.089	51.428	17.012	1.00	0.00
ATOM	2325	HE	ARG	2	775	49.115	54.068	22.279	1.00	0.00
ATOM	2326	1HH1	ARG	2	775	51.117	51.297	21.554	1.00	0.00
ATOM	2327	2HH1	ARG	2	775	51.072	52.976	21.862	1.00	0.00
ATOM	2328	1HH2	ARG	2	775	49.040	50.086	21.443	1.00	0.00
ATOM	2329	2HH2	ARG	2	775	47.596	50.936	21.806	1.00	0.00
ATOM	2330	N	ASP	2	776	48.716	54.201	16.463	1.00	0.00
ATOM	2331	CA	ASP	2	776	49.197	55.146	15.459	1.00	0.00
ATOM	2332	C	ASP	2	776	48.121	55.524	14.461	1.00	0.00
ATOM	2333	O	ASP	2	776	47.797	56.702	14.326	1.00	0.00
ATOM	2334	CB	ASP	2	776	50.457	54.614	14.759	1.00	0.00
ATOM	2335	CG	ASP	2	776	50.346	53.116	14.558	1.00	0.00
ATOM	2336	OD1	ASP	2	776	49.859	52.675	13.527	1.00	0.00
ATOM	2337	OD2	ASP	2	776	50.708	52.382	15.469	1.00	0.00
ATOM	2338	H	ASP	2	776	49.124	53.292	16.489	1.00	0.00
ATOM	2339	N	LYS	2	777	47.536	54.499	13.818	1.00	0.00
ATOM	2340	CA	LYS	2	777	46.425	54.828	12.930	1.00	0.00
ATOM	2341	C	LYS	2	777	45.361	55.709	13.575	1.00	0.00
ATOM	2342	O	LYS	2	777	44.833	56.634	12.952	1.00	0.00

ATOM	2343	CB	LYS	2	777	45.859	53.559	12.272	1.00	0.00
ATOM	2344	CG	LYS	2	777	45.016	53.785	11.006	1.00	0.00
ATOM	2345	CD	LYS	2	777	43.567	54.203	11.263	1.00	0.00
ATOM	2346	CE	LYS	2	777	43.166	55.534	10.624	1.00	0.00
ATOM	2347	NZ	LYS	2	777	41.952	56.009	11.293	1.00	0.00
ATOM	2348	H	LYS	2	777	47.931	53.587	13.906	1.00	0.00
ATOM	2349	1HZ	LYS	2	777	42.104	56.119	12.313	1.00	0.00
ATOM	2350	2HZ	LYS	2	777	41.667	56.933	10.937	1.00	0.00
ATOM	2351	3HZ	LYS	2	777	41.169	55.352	11.110	1.00	0.00
ATOM	2352	N	ILE	2	778	45.087	55.418	14.863	1.00	0.00
ATOM	2353	CA	ILE	2	778	44.251	56.358	15.615	1.00	0.00
ATOM	2354	C	ILE	2	778	44.796	57.773	15.549	1.00	0.00
ATOM	2355	O	ILE	2	778	44.225	58.656	14.917	1.00	0.00
ATOM	2356	CB	ILE	2	778	44.093	55.964	17.090	1.00	0.00
ATOM	2357	CG1	ILE	2	778	43.670	54.516	17.296	1.00	0.00
ATOM	2358	CG2	ILE	2	778	43.097	56.914	17.749	1.00	0.00
ATOM	2359	CD1	ILE	2	778	43.552	54.135	18.774	1.00	0.00
ATOM	2360	H	ILE	2	778	45.702	54.763	15.299	1.00	0.00
ATOM	2361	N	THR	2	779	45.961	57.953	16.189	1.00	0.00
ATOM	2362	CA	THR	2	779	46.530	59.301	16.289	1.00	0.00
ATOM	2363	C	THR	2	779	46.520	60.133	15.013	1.00	0.00
ATOM	2364	O	THR	2	779	45.926	61.210	14.971	1.00	0.00
ATOM	2365	CB	THR	2	779	47.916	59.233	16.930	1.00	0.00
ATOM	2366	OG1	THR	2	779	48.513	57.938	16.690	1.00	0.00
ATOM	2367	CG2	THR	2	779	47.820	59.484	18.435	1.00	0.00
ATOM	2368	H	THR	2	779	46.427	57.212	16.673	1.00	0.00
ATOM	2369	HG1	THR	2	779	48.747	57.936	15.762	1.00	0.00
ATOM	2370	N	ILE	2	780	47.116	59.538	13.944	1.00	0.00
ATOM	2371	CA	ILE	2	780	47.086	60.192	12.629	1.00	0.00
ATOM	2372	C	ILE	2	780	45.722	60.713	12.216	1.00	0.00
ATOM	2373	O	ILE	2	780	45.545	61.907	12.077	1.00	0.00
ATOM	2374	CB	ILE	2	780	47.775	59.379	11.497	1.00	0.00
ATOM	2375	CG1	ILE	2	780	47.603	60.058	10.126	1.00	0.00
ATOM	2376	CG2	ILE	2	780	47.296	57.930	11.412	1.00	0.00
ATOM	2377	CD1	ILE	2	780	48.092	59.249	8.922	1.00	0.00
ATOM	2378	H	ILE	2	780	47.582	58.657	14.057	1.00	0.00
ATOM	2379	N	ALA	2	781	44.753	59.803	12.065	1.00	0.00
ATOM	2380	CA	ALA	2	781	43.467	60.292	11.580	1.00	0.00
ATOM	2381	C	ALA	2	781	42.553	60.877	12.625	1.00	0.00
ATOM	2382	O	ALA	2	781	41.401	61.217	12.343	1.00	0.00
ATOM	2383	CB	ALA	2	781	42.689	59.167	10.935	1.00	0.00
ATOM	2384	H	ALA	2	781	44.893	58.850	12.321	1.00	0.00
ATOM	2385	N	ILE	2	782	43.069	60.882	13.863	1.00	0.00
ATOM	2386	CA	ILE	2	782	42.253	61.529	14.871	1.00	0.00
ATOM	2387	C	ILE	2	782	42.492	63.026	14.885	1.00	0.00
ATOM	2388	O	ILE	2	782	41.550	63.792	15.099	1.00	0.00
ATOM	2389	CB	ILE	2	782	42.355	60.839	16.252	1.00	0.00
ATOM	2390	CG1	ILE	2	782	41.070	61.008	17.061	1.00	0.00
ATOM	2391	CG2	ILE	2	782	43.554	61.297	17.090	1.00	0.00
ATOM	2392	CD1	ILE	2	782	39.895	60.229	16.472	1.00	0.00
ATOM	2393	H	ILE	2	782	44.032	60.692	14.039	1.00	0.00
ATOM	2394	N	LEU	2	783	43.765	63.376	14.563	1.00	0.00
ATOM	2395	CA	LEU	2	783	44.114	64.755	14.229	1.00	0.00
ATOM	2396	C	LEU	2	783	43.801	65.132	12.790	1.00	0.00
ATOM	2397	O	LEU	2	783	43.255	66.201	12.544	1.00	0.00
ATOM	2398	CB	LEU	2	783	45.567	65.103	14.563	1.00	0.00
ATOM	2399	CG	LEU	2	783	45.755	66.628	14.618	1.00	0.00
ATOM	2400	CD1	LEU	2	783	45.756	67.163	16.049	1.00	0.00
ATOM	2401	CD2	LEU	2	783	46.959	67.115	13.816	1.00	0.00
ATOM	2402	H	LEU	2	783	44.450	62.656	14.433	1.00	0.00
ATOM	2403	N	GLN	2	784	44.050	64.193	11.861	1.00	0.00
ATOM	2404	CA	GLN	2	784	43.603	64.359	10.458	1.00	0.00
ATOM	2405	C	GLN	2	784	42.091	64.412	10.251	1.00	0.00
ATOM	2406	O	GLN	2	784	41.522	64.344	9.159	1.00	0.00
ATOM	2407	CB	GLN	2	784	44.148	63.273	9.523	1.00	0.00
ATOM	2408	CG	GLN	2	784	45.650	63.288	9.225	1.00	0.00
ATOM	2409	CD	GLN	2	784	46.021	64.403	8.271	1.00	0.00

ATOM	2410	OE1	GLN	2	784	46.129	64.241	7.056	1.00	0.00
ATOM	2411	NE2	GLN	2	784	46.298	65.557	8.876	1.00	0.00
ATOM	2412	H	GLN	2	784	44.507	63.374	12.192	1.00	0.00
ATOM	2413	1HE2	GLN	2	784	46.522	66.376	8.347	1.00	0.00
ATOM	2414	2HE2	GLN	2	784	46.364	65.658	9.874	1.00	0.00
ATOM	2415	N	LEU	2	785	41.376	64.516	11.377	1.00	0.00
ATOM	2416	CA	LEU	2	785	40.000	64.943	11.237	1.00	0.00
ATOM	2417	C	LEU	2	785	39.813	66.450	11.120	1.00	0.00
ATOM	2418	O	LEU	2	785	38.796	66.928	11.597	1.00	0.00
ATOM	2419	CB	LEU	2	785	39.164	64.465	12.429	1.00	0.00
ATOM	2420	CG	LEU	2	785	38.961	62.964	12.591	1.00	0.00
ATOM	2421	CD1	LEU	2	785	38.399	62.649	13.974	1.00	0.00
ATOM	2422	CD2	LEU	2	785	38.111	62.348	11.479	1.00	0.00
ATOM	2423	H	LEU	2	785	41.845	64.509	12.254	1.00	0.00
ATOM	2424	N	GLN	2	786	40.756	67.213	10.552	1.00	0.00
ATOM	2425	CA	GLN	2	786	40.552	68.656	10.758	1.00	0.00
ATOM	2426	C	GLN	2	786	40.672	69.628	9.577	1.00	0.00
ATOM	2427	O	GLN	2	786	40.298	70.794	9.686	1.00	0.00
ATOM	2428	CB	GLN	2	786	41.406	69.169	11.932	1.00	0.00
ATOM	2429	CG	GLN	2	786	40.735	69.162	13.320	1.00	0.00
ATOM	2430	CD	GLN	2	786	40.879	67.834	14.051	1.00	0.00
ATOM	2431	OE1	GLN	2	786	39.943	67.063	14.234	1.00	0.00
ATOM	2432	NE2	GLN	2	786	42.100	67.621	14.539	1.00	0.00
ATOM	2433	H	GLN	2	786	41.610	66.844	10.164	1.00	0.00
ATOM	2434	1HE2	GLN	2	786	42.255	66.799	15.086	1.00	0.00
ATOM	2435	2HE2	GLN	2	786	42.914	68.175	14.341	1.00	0.00
ATOM	2436	N	GLU	2	787	41.222	69.124	8.469	1.00	0.00
ATOM	2437	CA	GLU	2	787	41.816	69.935	7.390	1.00	0.00
ATOM	2438	C	GLU	2	787	40.847	70.808	6.604	1.00	0.00
ATOM	2439	O	GLU	2	787	41.167	71.854	6.038	1.00	0.00
ATOM	2440	CB	GLU	2	787	42.584	69.038	6.398	1.00	0.00
ATOM	2441	CG	GLU	2	787	43.691	68.126	6.963	1.00	0.00
ATOM	2442	CD	GLU	2	787	43.097	67.124	7.932	1.00	0.00
ATOM	2443	OE1	GLU	2	787	42.321	66.270	7.517	1.00	0.00
ATOM	2444	OE2	GLU	2	787	43.329	67.258	9.128	1.00	0.00
ATOM	2445	H	GLU	2	787	41.340	68.134	8.448	1.00	0.00
ATOM	2446	N	GLU	2	788	39.623	70.301	6.606	1.00	0.00
ATOM	2447	CA	GLU	2	788	38.468	71.020	6.082	1.00	0.00
ATOM	2448	C	GLU	2	788	37.609	71.461	7.244	1.00	0.00
ATOM	2449	O	GLU	2	788	37.061	72.563	7.324	1.00	0.00
ATOM	2450	CB	GLU	2	788	37.627	70.130	5.158	1.00	0.00
ATOM	2451	CG	GLU	2	788	38.260	68.794	4.736	1.00	0.00
ATOM	2452	CD	GLU	2	788	38.125	67.690	5.782	1.00	0.00
ATOM	2453	OE1	GLU	2	788	38.162	67.922	6.995	1.00	0.00
ATOM	2454	OE2	GLU	2	788	37.997	66.544	5.379	1.00	0.00
ATOM	2455	H	GLU	2	788	39.519	69.402	7.027	1.00	0.00
ATOM	2456	N	GLY	2	789	37.537	70.512	8.177	1.00	0.00
ATOM	2457	CA	GLY	2	789	36.921	70.804	9.454	1.00	0.00
ATOM	2458	C	GLY	2	789	36.382	69.594	10.176	1.00	0.00
ATOM	2459	O	GLY	2	789	35.798	69.768	11.244	1.00	0.00
ATOM	2460	H	GLY	2	789	38.038	69.667	7.993	1.00	0.00
ATOM	2461	N	LYS	2	790	36.568	68.382	9.573	1.00	0.00
ATOM	2462	CA	LYS	2	790	35.844	67.171	10.019	1.00	0.00
ATOM	2463	C	LYS	2	790	35.294	67.174	11.433	1.00	0.00
ATOM	2464	O	LYS	2	790	34.093	67.289	11.613	1.00	0.00
ATOM	2465	CB	LYS	2	790	36.596	65.846	9.809	1.00	0.00
ATOM	2466	CG	LYS	2	790	37.030	65.477	8.393	1.00	0.00
ATOM	2467	CD	LYS	2	790	38.086	64.363	8.376	1.00	0.00
ATOM	2468	CE	LYS	2	790	39.086	64.420	7.211	1.00	0.00
ATOM	2469	NZ	LYS	2	790	39.807	65.706	7.212	1.00	0.00
ATOM	2470	H	LYS	2	790	37.072	68.369	8.708	1.00	0.00
ATOM	2471	1HZ	LYS	2	790	40.159	65.975	6.275	1.00	0.00
ATOM	2472	2HZ	LYS	2	790	39.149	66.475	7.444	1.00	0.00
ATOM	2473	3HZ	LYS	2	790	40.636	65.721	7.846	1.00	0.00
ATOM	2474	N	LEU	2	791	36.161	67.105	12.453	1.00	0.00
ATOM	2475	CA	LEU	2	791	35.671	67.050	13.835	1.00	0.00
ATOM	2476	C	LEU	2	791	34.755	68.197	14.242	1.00	0.00

ATOM	2477	O	LEU	2	791	33.705	68.013	14.847	1.00	0.00
ATOM	2478	CB	LEU	2	791	36.845	66.929	14.805	1.00	0.00
ATOM	2479	CG	LEU	2	791	36.466	66.445	16.207	1.00	0.00
ATOM	2480	CD1	LEU	2	791	35.975	64.996	16.199	1.00	0.00
ATOM	2481	CD2	LEU	2	791	37.608	66.651	17.200	1.00	0.00
ATOM	2482	H	LEU	2	791	37.138	67.221	12.280	1.00	0.00
ATOM	2483	N	HIS	2	792	35.156	69.410	13.822	1.00	0.00
ATOM	2484	CA	HIS	2	792	34.229	70.550	13.929	1.00	0.00
ATOM	2485	C	HIS	2	792	32.918	70.374	13.151	1.00	0.00
ATOM	2486	O	HIS	2	792	31.808	70.464	13.673	1.00	0.00
ATOM	2487	CB	HIS	2	792	34.970	71.848	13.556	1.00	0.00
ATOM	2488	CG	HIS	2	792	34.070	73.068	13.553	1.00	0.00
ATOM	2489	ND1	HIS	2	792	33.786	73.809	14.643	1.00	0.00
ATOM	2490	CD2	HIS	2	792	33.418	73.628	12.450	1.00	0.00
ATOM	2491	CE1	HIS	2	792	32.963	74.827	14.238	1.00	0.00
ATOM	2492	NE2	HIS	2	792	32.737	74.716	12.890	1.00	0.00
ATOM	2493	H	HIS	2	792	36.007	69.410	13.285	1.00	0.00
ATOM	2494	HD1	HIS	2	792	34.108	73.636	15.552	1.00	0.00
ATOM	2495	N	MET	2	793	33.094	70.087	11.855	1.00	0.00
ATOM	2496	CA	MET	2	793	31.963	69.844	10.955	1.00	0.00
ATOM	2497	C	MET	2	793	31.013	68.761	11.459	1.00	0.00
ATOM	2498	O	MET	2	793	29.820	68.708	11.166	1.00	0.00
ATOM	2499	CB	MET	2	793	32.516	69.529	9.558	1.00	0.00
ATOM	2500	CG	MET	2	793	31.463	69.339	8.464	1.00	0.00
ATOM	2501	SD	MET	2	793	32.181	68.982	6.853	1.00	0.00
ATOM	2502	CE	MET	2	793	30.672	68.456	6.030	1.00	0.00
ATOM	2503	H	MET	2	793	34.020	69.972	11.514	1.00	0.00
ATOM	2504	N	MET	2	794	31.590	67.902	12.309	1.00	0.00
ATOM	2505	CA	MET	2	794	30.853	66.777	12.852	1.00	0.00
ATOM	2506	C	MET	2	794	30.384	66.941	14.278	1.00	0.00
ATOM	2507	O	MET	2	794	29.433	66.274	14.681	1.00	0.00
ATOM	2508	CB	MET	2	794	31.661	65.491	12.691	1.00	0.00
ATOM	2509	CG	MET	2	794	31.744	65.092	11.218	1.00	0.00
ATOM	2510	SD	MET	2	794	32.743	63.629	10.925	1.00	0.00
ATOM	2511	CE	MET	2	794	32.266	63.392	9.209	1.00	0.00
ATOM	2512	H	MET	2	794	32.560	68.010	12.530	1.00	0.00
ATOM	2513	N	LYS	2	795	31.061	67.834	15.018	1.00	0.00
ATOM	2514	CA	LYS	2	795	30.605	67.999	16.393	1.00	0.00
ATOM	2515	C	LYS	2	795	29.262	68.669	16.519	1.00	0.00
ATOM	2516	O	LYS	2	795	28.474	68.297	17.381	1.00	0.00
ATOM	2517	CB	LYS	2	795	31.635	68.612	17.371	1.00	0.00
ATOM	2518	CG	LYS	2	795	32.473	69.844	16.987	1.00	0.00
ATOM	2519	CD	LYS	2	795	31.725	71.128	16.624	1.00	0.00
ATOM	2520	CE	LYS	2	795	31.015	71.776	17.793	1.00	0.00
ATOM	2521	NZ	LYS	2	795	30.022	72.743	17.317	1.00	0.00
ATOM	2522	H	LYS	2	795	31.817	68.346	14.609	1.00	0.00
ATOM	2523	1HZ	LYS	2	795	29.950	73.548	17.959	1.00	0.00
ATOM	2524	2HZ	LYS	2	795	30.147	73.133	16.361	1.00	0.00
ATOM	2525	3HZ	LYS	2	795	29.057	72.358	17.301	1.00	0.00
ATOM	2526	N	GLU	2	796	28.997	69.654	15.636	1.00	0.00
ATOM	2527	CA	GLU	2	796	27.815	70.507	15.868	1.00	0.00
ATOM	2528	C	GLU	2	796	26.481	69.784	16.118	1.00	0.00
ATOM	2529	O	GLU	2	796	25.581	70.244	16.813	1.00	0.00
ATOM	2530	CB	GLU	2	796	27.720	71.577	14.763	1.00	0.00
ATOM	2531	CG	GLU	2	796	27.008	72.904	15.111	1.00	0.00
ATOM	2532	CD	GLU	2	796	27.807	73.754	16.097	1.00	0.00
ATOM	2533	OE1	GLU	2	796	27.506	73.744	17.283	1.00	0.00
ATOM	2534	OE2	GLU	2	796	28.767	74.419	15.717	1.00	0.00
ATOM	2535	H	GLU	2	796	29.681	69.903	14.944	1.00	0.00
ATOM	2536	N	LYS	2	797	26.395	68.578	15.533	1.00	0.00
ATOM	2537	CA	LYS	2	797	25.202	67.761	15.781	1.00	0.00
ATOM	2538	C	LYS	2	797	24.942	67.318	17.224	1.00	0.00
ATOM	2539	O	LYS	2	797	23.803	67.244	17.675	1.00	0.00
ATOM	2540	CB	LYS	2	797	25.098	66.591	14.783	1.00	0.00
ATOM	2541	CG	LYS	2	797	26.405	66.213	14.073	1.00	0.00
ATOM	2542	CD	LYS	2	797	26.262	65.170	12.964	1.00	0.00
ATOM	2543	CE	LYS	2	797	27.556	64.948	12.169	1.00	0.00

ATOM	2544	NZ	LYS	2	797	28.587	64.271	12.964	1.00	0.00
ATOM	2545	H	LYS	2	797	27.191	68.304	14.990	1.00	0.00
ATOM	2546	1HZ	LYS	2	797	28.985	64.842	13.734	1.00	0.00
ATOM	2547	2HZ	LYS	2	797	28.259	63.349	13.310	1.00	0.00
ATOM	2548	3HZ	LYS	2	797	29.360	63.965	12.342	1.00	0.00
ATOM	2549	N	TRP	2	798	26.037	67.033	17.942	1.00	0.00
ATOM	2550	CA	TRP	2	798	25.860	66.711	19.358	1.00	0.00
ATOM	2551	C	TRP	2	798	26.268	67.818	20.314	1.00	0.00
ATOM	2552	O	TRP	2	798	25.589	68.147	21.283	1.00	0.00
ATOM	2553	CB	TRP	2	798	26.596	65.419	19.699	1.00	0.00
ATOM	2554	CG	TRP	2	798	25.756	64.232	19.306	1.00	0.00
ATOM	2555	CD1	TRP	2	798	24.843	63.559	20.132	1.00	0.00
ATOM	2556	CD2	TRP	2	798	25.706	63.546	18.037	1.00	0.00
ATOM	2557	NE1	TRP	2	798	24.253	62.530	19.467	1.00	0.00
ATOM	2558	CE2	TRP	2	798	24.753	62.483	18.172	1.00	0.00
ATOM	2559	CE3	TRP	2	798	26.380	63.731	16.812	1.00	0.00
ATOM	2560	CZ2	TRP	2	798	24.489	61.629	17.080	1.00	0.00
ATOM	2561	CZ3	TRP	2	798	26.109	62.870	15.727	1.00	0.00
ATOM	2562	CH2	TRP	2	798	25.168	61.827	15.859	1.00	0.00
ATOM	2563	H	TRP	2	798	26.920	67.136	17.484	1.00	0.00
ATOM	2564	HE1	TRP	2	798	23.580	61.904	19.807	1.00	0.00
ATOM	2565	N	TRP	2	799	27.450	68.364	20.016	1.00	0.00
ATOM	2566	CA	TRP	2	799	27.962	69.399	20.902	1.00	0.00
ATOM	2567	C	TRP	2	799	28.138	70.726	20.203	1.00	0.00
ATOM	2568	O	TRP	2	799	28.333	70.847	18.990	1.00	0.00
ATOM	2569	CB	TRP	2	799	29.227	68.920	21.629	1.00	0.00
ATOM	2570	CG	TRP	2	799	28.887	67.605	22.294	1.00	0.00
ATOM	2571	CD1	TRP	2	799	27.999	67.406	23.364	1.00	0.00
ATOM	2572	CD2	TRP	2	799	29.311	66.284	21.903	1.00	0.00
ATOM	2573	NE1	TRP	2	799	27.844	66.084	23.638	1.00	0.00
ATOM	2574	CE2	TRP	2	799	28.634	65.350	22.758	1.00	0.00
ATOM	2575	CE3	TRP	2	799	30.183	65.813	20.897	1.00	0.00
ATOM	2576	CZ2	TRP	2	799	28.839	63.964	22.586	1.00	0.00
ATOM	2577	CZ3	TRP	2	799	30.380	64.425	20.738	1.00	0.00
ATOM	2578	CH2	TRP	2	799	29.711	63.506	21.575	1.00	0.00
ATOM	2579	H	TRP	2	799	28.012	68.129	19.226	1.00	0.00
ATOM	2580	HE1	TRP	2	799	27.252	65.708	24.328	1.00	0.00
ATOM	2581	N	ARG	2	800	27.983	71.758	21.041	1.00	0.00
ATOM	2582	CA	ARG	2	800	27.927	73.077	20.418	1.00	0.00
ATOM	2583	C	ARG	2	800	29.231	73.821	20.605	1.00	0.00
ATOM	2584	O	ARG	2	800	30.060	73.871	19.695	1.00	0.00
ATOM	2585	CB	ARG	2	800	26.656	73.846	20.818	1.00	0.00
ATOM	2586	CG	ARG	2	800	25.378	73.233	20.208	1.00	0.00
ATOM	2587	CD	ARG	2	800	24.826	72.009	20.952	1.00	0.00
ATOM	2588	NE	ARG	2	800	24.402	70.940	20.043	1.00	0.00
ATOM	2589	CZ	ARG	2	800	23.595	69.955	20.501	1.00	0.00
ATOM	2590	NH1	ARG	2	800	23.298	68.898	19.758	1.00	0.00
ATOM	2591	NH2	ARG	2	800	23.089	70.023	21.724	1.00	0.00
ATOM	2592	H	ARG	2	800	28.049	71.561	22.018	1.00	0.00
ATOM	2593	HE	ARG	2	800	24.852	70.846	19.141	1.00	0.00
ATOM	2594	1HH1	ARG	2	800	22.721	68.174	20.164	1.00	0.00
ATOM	2595	2HH1	ARG	2	800	23.648	68.753	18.823	1.00	0.00
ATOM	2596	1HH2	ARG	2	800	22.608	69.202	22.076	1.00	0.00
ATOM	2597	2HH2	ARG	2	800	23.208	70.820	22.316	1.00	0.00
ATOM	2598	N	GLY	2	801	29.444	74.282	21.841	1.00	0.00
ATOM	2599	CA	GLY	2	801	30.839	74.485	22.196	1.00	0.00
ATOM	2600	C	GLY	2	801	31.488	73.160	22.555	1.00	0.00
ATOM	2601	O	GLY	2	801	30.798	72.191	22.886	1.00	0.00
ATOM	2602	H	GLY	2	801	28.731	74.337	22.533	1.00	0.00
ATOM	2603	N	ASN	2	802	32.831	73.236	22.480	1.00	0.00
ATOM	2604	CA	ASN	2	802	33.916	72.305	22.829	1.00	0.00
ATOM	2605	C	ASN	2	802	35.095	72.723	21.979	1.00	0.00
ATOM	2606	O	ASN	2	802	34.907	73.537	21.068	1.00	0.00
ATOM	2607	CB	ASN	2	802	33.600	70.816	22.641	1.00	0.00
ATOM	2608	CG	ASN	2	802	33.081	70.291	23.964	1.00	0.00
ATOM	2609	OD1	ASN	2	802	32.383	70.986	24.703	1.00	0.00
ATOM	2610	ND2	ASN	2	802	33.432	69.035	24.255	1.00	0.00

ATOM	2611	H	ASN	2	802	33.169	74.086	22.080	1.00	0.00
ATOM	2612	1HD2	ASN	2	802	33.161	68.527	25.077	1.00	0.00
ATOM	2613	2HD2	ASN	2	802	34.043	68.578	23.599	1.00	0.00
ATOM	2614	N	GLY	2	803	36.284	72.207	22.328	1.00	0.00
ATOM	2615	CA	GLY	2	803	37.472	72.692	21.628	1.00	0.00
ATOM	2616	C	GLY	2	803	38.747	72.358	22.378	1.00	0.00
ATOM	2617	O	GLY	2	803	38.697	71.790	23.466	1.00	0.00
ATOM	2618	H	GLY	2	803	36.399	71.564	23.088	1.00	0.00
ATOM	2619	N	CYS	2	804	39.877	72.742	21.739	1.00	0.00
ATOM	2620	CA	CYS	2	804	41.249	72.312	22.084	1.00	0.00
ATOM	2621	C	CYS	2	804	41.587	70.928	21.559	1.00	0.00
ATOM	2622	O	CYS	2	804	40.813	69.989	21.737	1.00	0.00
ATOM	2623	CB	CYS	2	804	41.590	72.434	23.578	1.00	0.00
ATOM	2624	SG	CYS	2	804	41.297	74.130	24.158	1.00	0.00
ATOM	2625	H	CYS	2	804	39.725	73.297	20.925	1.00	0.00
ATOM	2626	N	PRO	2	805	42.720	70.872	20.809	1.00	0.00
ATOM	2627	CA	PRO	2	805	43.220	69.590	20.300	1.00	0.00
ATOM	2628	C	PRO	2	805	44.015	68.881	21.380	1.00	0.00
ATOM	2629	O	PRO	2	805	44.130	69.386	22.495	1.00	0.00
ATOM	2630	CB	PRO	2	805	44.083	70.042	19.120	1.00	0.00
ATOM	2631	CG	PRO	2	805	44.691	71.364	19.586	1.00	0.00
ATOM	2632	CD	PRO	2	805	43.556	71.994	20.387	1.00	0.00
ATOM	2633	N	GLU	2	806	44.529	67.702	21.000	1.00	0.00
ATOM	2634	CA	GLU	2	806	45.201	66.847	21.970	1.00	0.00
ATOM	2635	C	GLU	2	806	46.364	66.104	21.331	1.00	0.00
ATOM	2636	O	GLU	2	806	46.215	65.049	20.721	1.00	0.00
ATOM	2637	CB	GLU	2	806	44.174	65.894	22.594	1.00	0.00
ATOM	2638	CG	GLU	2	806	43.462	66.433	23.845	1.00	0.00
ATOM	2639	CD	GLU	2	806	44.328	66.249	25.080	1.00	0.00
ATOM	2640	OE1	GLU	2	806	45.423	66.805	25.141	1.00	0.00
ATOM	2641	OE2	GLU	2	806	43.930	65.512	25.984	1.00	0.00
ATOM	2642	H	GLU	2	806	44.314	67.338	20.096	1.00	0.00
ATOM	2643	N	GLU	2	807	47.540	66.746	21.485	1.00	0.00
ATOM	2644	CA	GLU	2	807	48.866	66.269	21.050	1.00	0.00
ATOM	2645	C	GLU	2	807	49.363	66.461	19.602	1.00	0.00
ATOM	2646	O	GLU	2	807	49.761	67.555	19.193	1.00	0.00
ATOM	2647	CB	GLU	2	807	49.172	64.858	21.594	1.00	0.00
ATOM	2648	CG	GLU	2	807	50.159	64.857	22.764	1.00	0.00
ATOM	2649	CD	GLU	2	807	49.491	64.286	24.000	1.00	0.00
ATOM	2650	OE1	GLU	2	807	49.025	65.056	24.830	1.00	0.00
ATOM	2651	OE2	GLU	2	807	49.429	63.068	24.144	1.00	0.00
ATOM	2652	H	GLU	2	807	47.501	67.616	21.977	1.00	0.00
ATOM	2653	N	GLU	2	808	49.432	65.317	18.893	1.00	0.00
ATOM	2654	CA	GLU	2	808	50.376	65.174	17.775	1.00	0.00
ATOM	2655	C	GLU	2	808	50.057	65.973	16.513	1.00	0.00
ATOM	2656	O	GLU	2	808	48.921	66.028	16.052	1.00	0.00
ATOM	2657	CB	GLU	2	808	50.575	63.670	17.509	1.00	0.00
ATOM	2658	CG	GLU	2	808	51.563	63.222	16.415	1.00	0.00
ATOM	2659	CD	GLU	2	808	53.002	63.633	16.696	1.00	0.00
ATOM	2660	OE1	GLU	2	808	53.858	62.780	16.924	1.00	0.00
ATOM	2661	OE2	GLU	2	808	53.327	64.812	16.606	1.00	0.00
ATOM	2662	H	GLU	2	808	48.805	64.563	19.089	1.00	0.00
ATOM	2663	N	SER	2	809	51.137	66.589	15.996	1.00	0.00
ATOM	2664	CA	SER	2	809	51.000	67.433	14.806	1.00	0.00
ATOM	2665	C	SER	2	809	52.048	67.187	13.719	1.00	0.00
ATOM	2666	O	SER	2	809	52.513	68.089	13.015	1.00	0.00
ATOM	2667	CB	SER	2	809	50.964	68.908	15.221	1.00	0.00
ATOM	2668	OG	SER	2	809	51.443	69.081	16.574	1.00	0.00
ATOM	2669	H	SER	2	809	52.031	66.451	16.423	1.00	0.00
ATOM	2670	HG	SER	2	809	50.845	68.527	17.078	1.00	0.00
ATOM	2671	N	LYS	2	810	52.446	65.901	13.655	1.00	0.00
ATOM	2672	CA	LYS	2	810	53.137	65.311	12.504	1.00	0.00
ATOM	2673	C	LYS	2	810	52.902	63.815	12.547	1.00	0.00
ATOM	2674	O	LYS	2	810	53.593	63.096	13.274	1.00	0.00
ATOM	2675	CB	LYS	2	810	54.664	65.522	12.411	1.00	0.00
ATOM	2676	CG	LYS	2	810	55.426	66.533	13.281	1.00	0.00
ATOM	2677	CD	LYS	2	810	55.615	66.195	14.769	1.00	0.00

ATOM	2678	CE	LYS	2	810	56.253	64.835	15.095	1.00	0.00
ATOM	2679	NZ	LYS	2	810	55.246	63.776	15.024	1.00	0.00
ATOM	2680	H	LYS	2	810	52.001	65.286	14.307	1.00	0.00
ATOM	2681	1HZ	LYS	2	810	55.335	63.064	15.778	1.00	0.00
ATOM	2682	2HZ	LYS	2	810	54.316	64.192	15.245	1.00	0.00
ATOM	2683	3HZ	LYS	2	810	55.136	63.312	14.100	1.00	0.00
ATOM	2684	N	GLU	2	811	51.881	63.421	11.796	1.00	0.00
ATOM	2685	CA	GLU	2	811	51.096	62.266	12.182	1.00	0.00
ATOM	2686	C	GLU	2	811	51.002	61.260	11.051	1.00	0.00
ATOM	2687	O	GLU	2	811	50.643	61.619	9.936	1.00	0.00
ATOM	2688	CB	GLU	2	811	49.722	62.767	12.690	1.00	0.00
ATOM	2689	CG	GLU	2	811	48.708	63.403	11.701	1.00	0.00
ATOM	2690	CD	GLU	2	811	48.932	64.868	11.325	1.00	0.00
ATOM	2691	OE1	GLU	2	811	47.945	65.580	11.139	1.00	0.00
ATOM	2692	OE2	GLU	2	811	50.072	65.309	11.196	1.00	0.00
ATOM	2693	H	GLU	2	811	51.555	64.015	11.060	1.00	0.00
ATOM	2694	N	ALA	2	812	51.365	60.012	11.388	1.00	0.00
ATOM	2695	CA	ALA	2	812	51.371	58.887	10.449	1.00	0.00
ATOM	2696	C	ALA	2	812	51.803	57.606	11.160	1.00	0.00
ATOM	2697	O	ALA	2	812	52.802	57.659	11.880	1.00	0.00
ATOM	2698	CB	ALA	2	812	52.338	59.111	9.277	1.00	0.00
ATOM	2699	OXT	ALA	2	812	51.160	56.561	11.004	1.00	0.00
ATOM	2700	H	ALA	2	812	51.621	59.777	12.323	1.00	0.00
END										

TABLE 5

REMARK	1	NMDA Receptor Model	(NR2) of	the NR2-B Glutamate Binding Site				
ATOM	1	N LYS S	1	18.429	77.937	39.479	1.00	0.00
ATOM	2	CA LYS S	1	17.556	78.094	40.646	1.00	0.00
ATOM	3	C LYS S	1	18.237	78.854	41.768	1.00	0.00
ATOM	4	O LYS S	1	17.801	79.919	42.195	1.00	0.00
ATOM	5	CB LYS S	1	17.092	76.744	41.223	1.00	0.00
ATOM	6	CG LYS S	1	15.896	76.069	40.553	1.00	0.00
ATOM	7	CD LYS S	1	15.533	74.731	41.210	1.00	0.00
ATOM	8	CE LYS S	1	14.443	73.947	40.467	1.00	0.00
ATOM	9	NZ LYS S	1	15.017	73.031	39.467	1.00	0.00
ATOM	10	1H LYS S	1	18.907	78.837	39.244	1.00	0.00
ATOM	11	2H LYS S	1	19.198	77.276	39.679	1.00	0.00
ATOM	12	3H LYS S	1	17.921	77.602	38.635	1.00	0.00
ATOM	13	1HZ LYS S	1	15.718	73.497	38.853	1.00	0.00
ATOM	14	2HZ LYS S	1	15.434	72.214	39.954	1.00	0.00
ATOM	15	3HZ LYS S	1	14.285	72.655	38.831	1.00	0.00
ATOM	16	N LYS S	2	19.268	78.190	42.310	1.00	0.00
ATOM	17	CA LYS S	2	19.708	78.705	43.602	1.00	0.00
ATOM	18	C LYS S	2	21.208	78.790	43.749	1.00	0.00
ATOM	19	O LYS S	2	21.733	79.700	44.404	1.00	0.00
ATOM	20	CB LYS S	2	19.039	77.894	44.733	1.00	0.00
ATOM	21	CG LYS S	2	19.268	78.411	46.162	1.00	0.00
ATOM	22	CD LYS S	2	20.533	77.847	46.819	1.00	0.00
ATOM	23	CE LYS S	2	21.235	78.842	47.748	1.00	0.00
ATOM	24	NZ LYS S	2	21.652	80.026	46.982	1.00	0.00
ATOM	25	H LYS S	2	19.635	77.361	41.892	1.00	0.00
ATOM	26	1HZ LYS S	2	22.358	80.561	47.519	1.00	0.00
ATOM	27	2HZ LYS S	2	22.062	79.762	46.061	1.00	0.00
ATOM	28	3HZ LYS S	2	20.828	80.624	46.781	1.00	0.00
ATOM	29	N PHE S	3	21.844	77.757	43.174	1.00	0.00
ATOM	30	CA PHE S	3	23.290	77.613	43.222	1.00	0.00
ATOM	31	C PHE S	3	23.689	76.518	42.263	1.00	0.00
ATOM	32	O PHE S	3	23.019	75.490	42.141	1.00	0.00
ATOM	33	CB PHE S	3	23.802	77.317	44.641	1.00	0.00
ATOM	34	CG PHE S	3	25.264	77.690	44.767	1.00	0.00
ATOM	35	CD1 PHE S	3	26.192	76.709	45.175	1.00	0.00
ATOM	36	CD2 PHE S	3	25.680	79.010	44.476	1.00	0.00
ATOM	37	CE1 PHE S	3	27.556	77.044	45.278	1.00	0.00
ATOM	38	CE2 PHE S	3	27.043	79.346	44.578	1.00	0.00
ATOM	39	CZ PHE S	3	27.969	78.357	44.971	1.00	0.00
ATOM	40	H PHE S	3	21.339	77.087	42.633	1.00	0.00
ATOM	41	N GLN S	4	24.782	76.811	41.550	1.00	0.00
ATOM	42	CA GLN S	4	25.325	75.781	40.670	1.00	0.00
ATOM	43	C GLN S	4	25.863	74.681	41.564	1.00	0.00
ATOM	44	O GLN S	4	26.261	74.976	42.688	1.00	0.00
ATOM	45	CB GLN S	4	26.406	76.446	39.808	1.00	0.00
ATOM	46	CG GLN S	4	27.150	75.558	38.811	1.00	0.00
ATOM	47	CD GLN S	4	28.625	75.580	39.156	1.00	0.00
ATOM	48	OE1 GLN S	4	29.357	76.551	38.957	1.00	0.00
ATOM	49	NE2 GLN S	4	29.061	74.465	39.739	1.00	0.00
ATOM	50	H GLN S	4	25.335	77.617	41.767	1.00	0.00
ATOM	51	1HE2 GLN S	4	30.013	74.361	40.014	1.00	0.00
ATOM	52	2HE2 GLN S	4	28.476	73.669	39.919	1.00	0.00
ATOM	53	N ARG S	5	25.847	73.428	41.079	1.00	0.00
ATOM	54	CA ARG S	5	26.355	72.361	41.948	1.00	0.00
ATOM	55	C ARG S	5	27.637	72.714	42.698	1.00	0.00
ATOM	56	O ARG S	5	28.700	72.991	42.148	1.00	0.00
ATOM	57	CB ARG S	5	26.476	71.056	41.165	1.00	0.00
ATOM	58	CG ARG S	5	26.858	69.787	41.940	1.00	0.00
ATOM	59	CD ARG S	5	27.068	68.655	40.933	1.00	0.00
ATOM	60	NE ARG S	5	27.356	67.354	41.533	1.00	0.00
ATOM	61	CZ ARG S	5	27.404	66.260	40.741	1.00	0.00
ATOM	62	NH1 ARG S	5	27.717	65.081	41.265	1.00	0.00
ATOM	63	NH2 ARG S	5	27.167	66.351	39.437	1.00	0.00
ATOM	64	H ARG S	5	25.340	73.235	40.239	1.00	0.00

ATOM	65	HE	ARG	S	5	27.737	67.231	42.450	1.00	0.00
ATOM	66	1HH1	ARG	S	5	27.899	64.953	42.238	1.00	0.00
ATOM	67	2HH1	ARG	S	5	27.782	64.277	40.669	1.00	0.00
ATOM	68	1HH2	ARG	S	5	27.284	65.561	38.816	1.00	0.00
ATOM	69	2HH2	ARG	S	5	26.877	67.207	39.002	1.00	0.00
ATOM	70	N	PRO	S	6	27.446	72.765	44.032	1.00	0.00
ATOM	71	CA	PRO	S	6	28.582	73.136	44.864	1.00	0.00
ATOM	72	C	PRO	S	6	29.592	72.006	44.939	1.00	0.00
ATOM	73	O	PRO	S	6	29.296	70.894	45.374	1.00	0.00
ATOM	74	CB	PRO	S	6	27.872	73.516	46.165	1.00	0.00
ATOM	75	CG	PRO	S	6	26.562	72.732	46.216	1.00	0.00
ATOM	76	CD	PRO	S	6	26.190	72.568	44.755	1.00	0.00
ATOM	77	N	ASN	S	7	30.786	72.308	44.437	1.00	0.00
ATOM	78	CA	ASN	S	7	31.865	71.324	44.516	1.00	0.00
ATOM	79	C	ASN	S	7	33.128	71.849	45.172	1.00	0.00
ATOM	80	O	ASN	S	7	34.066	71.140	45.524	1.00	0.00
ATOM	81	CB	ASN	S	7	32.148	70.700	43.156	1.00	0.00
ATOM	82	CG	ASN	S	7	32.258	69.196	43.299	1.00	0.00
ATOM	83	OD1	ASN	S	7	31.726	68.446	42.488	1.00	0.00
ATOM	84	ND2	ASN	S	7	32.928	68.756	44.367	1.00	0.00
ATOM	85	H	ASN	S	7	30.880	73.224	44.051	1.00	0.00
ATOM	86	1HD2	ASN	S	7	33.012	67.775	44.523	1.00	0.00
ATOM	87	2HD2	ASN	S	7	33.402	69.360	45.011	1.00	0.00
ATOM	88	N	ASP	S	8	33.037	73.166	45.411	1.00	0.00
ATOM	89	CA	ASP	S	8	33.658	73.842	46.549	1.00	0.00
ATOM	90	C	ASP	S	8	33.736	72.968	47.787	1.00	0.00
ATOM	91	O	ASP	S	8	32.756	72.634	48.459	1.00	0.00
ATOM	92	CB	ASP	S	8	32.910	75.157	46.834	1.00	0.00
ATOM	93	CG	ASP	S	8	31.406	74.970	46.682	1.00	0.00
ATOM	94	OD1	ASP	S	8	30.898	75.125	45.578	1.00	0.00
ATOM	95	OD2	ASP	S	8	30.735	74.644	47.647	1.00	0.00
ATOM	96	H	ASP	S	8	32.360	73.699	44.914	1.00	0.00
ATOM	97	N	PHE	S	9	34.998	72.558	47.982	1.00	0.00
ATOM	98	CA	PHE	S	9	35.376	71.612	49.033	1.00	0.00
ATOM	99	C	PHE	S	9	34.608	70.300	48.977	1.00	0.00
ATOM	100	O	PHE	S	9	33.853	70.034	48.037	1.00	0.00
ATOM	101	CB	PHE	S	9	35.297	72.273	50.422	1.00	0.00
ATOM	102	CG	PHE	S	9	36.133	73.532	50.468	1.00	0.00
ATOM	103	CD1	PHE	S	9	35.489	74.788	50.436	1.00	0.00
ATOM	104	CD2	PHE	S	9	37.540	73.434	50.542	1.00	0.00
ATOM	105	CE1	PHE	S	9	36.262	75.964	50.470	1.00	0.00
ATOM	106	CE2	PHE	S	9	38.315	74.609	50.577	1.00	0.00
ATOM	107	CZ	PHE	S	9	37.668	75.863	50.539	1.00	0.00
ATOM	108	H	PHE	S	9	35.700	72.928	47.383	1.00	0.00
ATOM	109	N	SER	S	10	34.791	69.508	50.051	1.00	0.00
ATOM	110	CA	SER	S	10	34.075	68.232	50.016	1.00	0.00
ATOM	111	C	SER	S	10	33.073	67.918	51.137	1.00	0.00
ATOM	112	O	SER	S	10	33.097	66.831	51.709	1.00	0.00
ATOM	113	CB	SER	S	10	35.117	67.115	49.878	1.00	0.00
ATOM	114	OG	SER	S	10	36.297	67.640	49.236	1.00	0.00
ATOM	115	H	SER	S	10	35.497	69.685	50.731	1.00	0.00
ATOM	116	HG	SER	S	10	36.772	66.869	48.930	1.00	0.00
ATOM	117	N	PRO	S	11	32.185	68.892	51.506	1.00	0.00
ATOM	118	CA	PRO	S	11	31.269	68.567	52.601	1.00	0.00
ATOM	119	C	PRO	S	11	30.090	67.706	52.158	1.00	0.00
ATOM	120	O	PRO	S	11	29.635	67.739	51.009	1.00	0.00
ATOM	121	CB	PRO	S	11	30.879	69.961	53.109	1.00	0.00
ATOM	122	CG	PRO	S	11	30.876	70.846	51.870	1.00	0.00
ATOM	123	CD	PRO	S	11	31.986	70.254	51.012	1.00	0.00
ATOM	124	N	PRO	S	12	29.625	66.903	53.139	1.00	0.00
ATOM	125	CA	PRO	S	12	28.359	66.202	52.960	1.00	0.00
ATOM	126	C	PRO	S	12	27.186	67.166	52.921	1.00	0.00
ATOM	127	O	PRO	S	12	27.257	68.314	53.371	1.00	0.00
ATOM	128	CB	PRO	S	12	28.329	65.265	54.171	1.00	0.00
ATOM	129	CG	PRO	S	12	29.135	65.980	55.252	1.00	0.00
ATOM	130	CD	PRO	S	12	30.235	66.653	54.442	1.00	0.00
ATOM	131	N	PHE	S	13	26.115	66.568	52.359	1.00	0.00

ATOM	132	CA	PHE	S	13	24.839	67.215	52.030	1.00	0.00
ATOM	133	C	PHE	S	13	24.831	67.806	50.629	1.00	0.00
ATOM	134	O	PHE	S	13	23.816	68.261	50.100	1.00	0.00
ATOM	135	CB	PHE	S	13	24.356	68.228	53.092	1.00	0.00
ATOM	136	CG	PHE	S	13	22.849	68.324	53.172	1.00	0.00
ATOM	137	CD1	PHE	S	13	22.161	69.278	52.389	1.00	0.00
ATOM	138	CD2	PHE	S	13	22.154	67.467	54.052	1.00	0.00
ATOM	139	CE1	PHE	S	13	20.760	69.375	52.487	1.00	0.00
ATOM	140	CE2	PHE	S	13	20.752	67.564	54.154	1.00	0.00
ATOM	141	CZ	PHE	S	13	20.070	68.518	53.370	1.00	0.00
ATOM	142	H	PHE	S	13	26.275	65.637	52.031	1.00	0.00
ATOM	143	N	ARG	S	14	26.009	67.779	49.990	1.00	0.00
ATOM	144	CA	ARG	S	14	25.977	68.012	48.553	1.00	0.00
ATOM	145	C	ARG	S	14	25.576	66.762	47.825	1.00	0.00
ATOM	146	O	ARG	S	14	26.434	66.023	47.319	1.00	0.00
ATOM	147	CB	ARG	S	14	27.320	68.450	47.985	1.00	0.00
ATOM	148	CG	ARG	S	14	27.577	69.933	48.154	1.00	0.00
ATOM	149	CD	ARG	S	14	28.043	70.329	49.547	1.00	0.00
ATOM	150	NE	ARG	S	14	28.012	71.777	49.699	1.00	0.00
ATOM	151	CZ	ARG	S	14	29.002	72.564	49.230	1.00	0.00
ATOM	152	NH1	ARG	S	14	28.917	73.873	49.437	1.00	0.00
ATOM	153	NH2	ARG	S	14	30.051	72.084	48.559	1.00	0.00
ATOM	154	H	ARG	S	14	26.831	67.419	50.424	1.00	0.00
ATOM	155	HE	ARG	S	14	27.172	72.119	50.116	1.00	0.00
ATOM	156	1HH1	ARG	S	14	29.605	74.465	48.991	1.00	0.00
ATOM	157	2HH1	ARG	S	14	28.205	74.309	49.988	1.00	0.00
ATOM	158	1HH2	ARG	S	14	30.829	72.678	48.290	1.00	0.00
ATOM	159	2HH2	ARG	S	14	30.091	71.117	48.293	1.00	0.00
ATOM	160	N	PHE	S	15	24.253	66.582	47.813	1.00	0.00
ATOM	161	CA	PHE	S	15	23.685	65.410	47.168	1.00	0.00
ATOM	162	C	PHE	S	15	23.906	65.326	45.675	1.00	0.00
ATOM	163	O	PHE	S	15	23.092	65.748	44.855	1.00	0.00
ATOM	164	CB	PHE	S	15	22.204	65.253	47.518	1.00	0.00
ATOM	165	CG	PHE	S	15	21.995	65.130	49.011	1.00	0.00
ATOM	166	CD1	PHE	S	15	21.049	65.972	49.633	1.00	0.00
ATOM	167	CD2	PHE	S	15	22.725	64.177	49.757	1.00	0.00
ATOM	168	CE1	PHE	S	15	20.821	65.851	51.016	1.00	0.00
ATOM	169	CE2	PHE	S	15	22.501	64.056	51.141	1.00	0.00
ATOM	170	CZ	PHE	S	15	21.545	64.891	51.755	1.00	0.00
ATOM	171	H	PHE	S	15	23.696	67.227	48.338	1.00	0.00
ATOM	172	N	GLY	S	16	25.056	64.680	45.415	1.00	0.00
ATOM	173	CA	GLY	S	16	25.367	64.047	44.139	1.00	0.00
ATOM	174	C	GLY	S	16	24.880	62.609	44.164	1.00	0.00
ATOM	175	O	GLY	S	16	24.477	62.111	45.218	1.00	0.00
ATOM	176	H	GLY	S	16	25.570	64.494	46.248	1.00	0.00
ATOM	177	N	THR	S	17	24.874	62.013	42.955	1.00	0.00
ATOM	178	CA	THR	S	17	24.230	60.722	42.686	1.00	0.00
ATOM	179	C	THR	S	17	24.557	60.144	41.293	1.00	0.00
ATOM	180	O	THR	S	17	25.268	60.728	40.479	1.00	0.00
ATOM	181	CB	THR	S	17	22.708	60.831	42.981	1.00	0.00
ATOM	182	OG1	THR	S	17	21.975	59.674	42.567	1.00	0.00
ATOM	183	CG2	THR	S	17	22.052	62.064	42.384	1.00	0.00
ATOM	184	H	THR	S	17	25.440	62.364	42.210	1.00	0.00
ATOM	185	HG1	THR	S	17	21.834	59.815	41.628	1.00	0.00
ATOM	186	N	VAL	S	18	24.008	58.926	41.081	1.00	0.00
ATOM	187	CA	VAL	S	18	24.028	58.089	39.868	1.00	0.00
ATOM	188	C	VAL	S	18	22.836	57.137	40.026	1.00	0.00
ATOM	189	O	VAL	S	18	22.102	57.326	40.990	1.00	0.00
ATOM	190	CB	VAL	S	18	25.359	57.312	39.754	1.00	0.00
ATOM	191	CG1	VAL	S	18	26.355	58.076	38.907	1.00	0.00
ATOM	192	CG2	VAL	S	18	25.977	56.901	41.091	1.00	0.00
ATOM	193	H	VAL	S	18	23.453	58.570	41.833	1.00	0.00
ATOM	194	N	PRO	S	19	22.628	56.111	39.146	1.00	0.00
ATOM	195	CA	PRO	S	19	21.998	54.873	39.634	1.00	0.00
ATOM	196	C	PRO	S	19	23.060	54.040	40.334	1.00	0.00
ATOM	197	O	PRO	S	19	24.173	54.508	40.549	1.00	0.00
ATOM	198	CB	PRO	S	19	21.561	54.201	38.332	1.00	0.00

ATOM	199	CG	PRO	S	19	22.611	54.620	37.307	1.00	0.00
ATOM	200	CD	PRO	S	19	22.919	56.052	37.720	1.00	0.00
ATOM	201	N	ASN	S	20	22.739	52.777	40.630	1.00	0.00
ATOM	202	CA	ASN	S	20	23.896	51.907	40.864	1.00	0.00
ATOM	203	C	ASN	S	20	24.467	51.470	39.541	1.00	0.00
ATOM	204	O	ASN	S	20	24.047	50.440	39.019	1.00	0.00
ATOM	205	CB	ASN	S	20	23.549	50.663	41.696	1.00	0.00
ATOM	206	CG	ASN	S	20	23.956	50.899	43.132	1.00	0.00
ATOM	207	OD1	ASN	S	20	24.140	52.039	43.556	1.00	0.00
ATOM	208	ND2	ASN	S	20	24.123	49.802	43.861	1.00	0.00
ATOM	209	H	ASN	S	20	21.807	52.433	40.516	1.00	0.00
ATOM	210	1HD2	ASN	S	20	24.486	49.907	44.783	1.00	0.00
ATOM	211	2HD2	ASN	S	20	23.906	48.890	43.529	1.00	0.00
ATOM	212	N	GLY	S	21	25.370	52.313	39.020	1.00	0.00
ATOM	213	CA	GLY	S	21	25.862	52.113	37.661	1.00	0.00
ATOM	214	C	GLY	S	21	27.217	52.744	37.371	1.00	0.00
ATOM	215	O	GLY	S	21	28.204	52.474	38.053	1.00	0.00
ATOM	216	H	GLY	S	21	25.578	53.163	39.506	1.00	0.00
ATOM	217	N	SER	S	22	27.208	53.555	36.293	1.00	0.00
ATOM	218	CA	SER	S	22	28.422	53.834	35.519	1.00	0.00
ATOM	219	C	SER	S	22	29.610	54.536	36.193	1.00	0.00
ATOM	220	O	SER	S	22	30.735	54.039	36.177	1.00	0.00
ATOM	221	CB	SER	S	22	27.980	54.521	34.209	1.00	0.00
ATOM	222	OG	SER	S	22	28.876	54.228	33.121	1.00	0.00
ATOM	223	H	SER	S	22	26.347	53.787	35.838	1.00	0.00
ATOM	224	HG	SER	S	22	29.501	54.957	33.133	1.00	0.00
ATOM	225	N	THR	S	23	29.307	55.733	36.753	1.00	0.00
ATOM	226	CA	THR	S	23	30.399	56.659	37.092	1.00	0.00
ATOM	227	C	THR	S	23	30.577	57.102	38.549	1.00	0.00
ATOM	228	O	THR	S	23	31.575	56.734	39.163	1.00	0.00
ATOM	229	CB	THR	S	23	30.366	57.843	36.114	1.00	0.00
ATOM	230	OG1	THR	S	23	30.836	57.422	34.826	1.00	0.00
ATOM	231	CG2	THR	S	23	31.182	59.065	36.539	1.00	0.00
ATOM	232	H	THR	S	23	28.341	56.000	36.765	1.00	0.00
ATOM	233	HG1	THR	S	23	30.363	56.637	34.539	1.00	0.00
ATOM	234	N	GLU	S	24	29.592	57.881	39.108	1.00	0.00
ATOM	235	CA	GLU	S	24	29.854	58.455	40.456	1.00	0.00
ATOM	236	C	GLU	S	24	30.387	57.440	41.460	1.00	0.00
ATOM	237	O	GLU	S	24	31.396	57.667	42.126	1.00	0.00
ATOM	238	CB	GLU	S	24	28.725	59.351	41.059	1.00	0.00
ATOM	239	CG	GLU	S	24	29.220	60.544	41.920	1.00	0.00
ATOM	240	CD	GLU	S	24	28.134	61.435	42.559	1.00	0.00
ATOM	241	OE1	GLU	S	24	27.499	62.274	41.910	1.00	0.00
ATOM	242	OE2	GLU	S	24	27.949	61.340	43.765	1.00	0.00
ATOM	243	H	GLU	S	24	28.890	58.254	38.497	1.00	0.00
ATOM	244	N	ARG	S	25	29.751	56.244	41.427	1.00	0.00
ATOM	245	CA	ARG	S	25	30.288	55.111	42.197	1.00	0.00
ATOM	246	C	ARG	S	25	31.808	54.889	42.143	1.00	0.00
ATOM	247	O	ARG	S	25	32.436	54.865	43.189	1.00	0.00
ATOM	248	CB	ARG	S	25	29.455	53.833	41.964	1.00	0.00
ATOM	249	CG	ARG	S	25	29.732	52.572	42.822	1.00	0.00
ATOM	250	CD	ARG	S	25	29.679	52.682	44.364	1.00	0.00
ATOM	251	NE	ARG	S	25	30.843	53.423	44.831	1.00	0.00
ATOM	252	CZ	ARG	S	25	30.794	54.388	45.773	1.00	0.00
ATOM	253	NH1	ARG	S	25	31.545	55.459	45.597	1.00	0.00
ATOM	254	NH2	ARG	S	25	30.016	54.305	46.851	1.00	0.00
ATOM	255	H	ARG	S	25	28.972	56.164	40.813	1.00	0.00
ATOM	256	HE	ARG	S	25	31.649	53.389	44.230	1.00	0.00
ATOM	257	1HH1	ARG	S	25	31.544	56.207	46.265	1.00	0.00
ATOM	258	2HH1	ARG	S	25	32.124	55.549	44.781	1.00	0.00
ATOM	259	1HH2	ARG	S	25	29.977	55.084	47.500	1.00	0.00
ATOM	260	2HH2	ARG	S	25	29.504	53.476	47.060	1.00	0.00
ATOM	261	N	ASN	S	26	32.415	54.826	40.947	1.00	0.00
ATOM	262	CA	ASN	S	26	33.893	54.856	41.009	1.00	0.00
ATOM	263	C	ASN	S	26	34.439	56.188	41.520	1.00	0.00
ATOM	264	O	ASN	S	26	35.011	56.280	42.608	1.00	0.00
ATOM	265	CB	ASN	S	26	34.546	54.460	39.670	1.00	0.00

ATOM	266	CG	ASN	S	26	36.075	54.381	39.756	1.00	0.00
ATOM	267	OD1	ASN	S	26	36.688	53.876	40.687	1.00	0.00
ATOM	268	ND2	ASN	S	26	36.698	54.880	38.680	1.00	0.00
ATOM	269	H	ASN	S	26	31.920	54.923	40.083	1.00	0.00
ATOM	270	1HD2	ASN	S	26	37.694	54.869	38.586	1.00	0.00
ATOM	271	2HD2	ASN	S	26	36.192	55.317	37.929	1.00	0.00
ATOM	272	N	ILE	S	27	34.169	57.237	40.714	1.00	0.00
ATOM	273	CA	ILE	S	27	34.856	58.516	40.941	1.00	0.00
ATOM	274	C	ILE	S	27	34.916	58.979	42.378	1.00	0.00
ATOM	275	O	ILE	S	27	35.983	58.908	42.976	1.00	0.00
ATOM	276	CB	ILE	S	27	34.412	59.628	39.958	1.00	0.00
ATOM	277	CG1	ILE	S	27	34.950	61.028	40.277	1.00	0.00
ATOM	278	CG2	ILE	S	27	32.905	59.694	39.785	1.00	0.00
ATOM	279	CD1	ILE	S	27	34.656	62.024	39.156	1.00	0.00
ATOM	280	H	ILE	S	27	33.576	57.073	39.926	1.00	0.00
ATOM	281	N	ARG	S	28	33.748	59.364	42.922	1.00	0.00
ATOM	282	CA	ARG	S	28	33.741	59.942	44.262	1.00	0.00
ATOM	283	C	ARG	S	28	34.169	59.019	45.391	1.00	0.00
ATOM	284	O	ARG	S	28	34.485	59.463	46.491	1.00	0.00
ATOM	285	CB	ARG	S	28	32.372	60.569	44.505	1.00	0.00
ATOM	286	CG	ARG	S	28	32.327	61.827	45.376	1.00	0.00
ATOM	287	CD	ARG	S	28	30.915	62.403	45.277	1.00	0.00
ATOM	288	NE	ARG	S	28	30.751	63.728	45.879	1.00	0.00
ATOM	289	CZ	ARG	S	28	29.493	64.215	45.990	1.00	0.00
ATOM	290	NH1	ARG	S	28	29.253	65.379	46.589	1.00	0.00
ATOM	291	NH2	ARG	S	28	28.469	63.524	45.490	1.00	0.00
ATOM	292	H	ARG	S	28	32.909	59.336	42.386	1.00	0.00
ATOM	293	HE	ARG	S	28	31.573	64.216	46.181	1.00	0.00
ATOM	294	1HH1	ARG	S	28	28.334	65.735	46.797	1.00	0.00
ATOM	295	2HH1	ARG	S	28	30.043	65.942	46.849	1.00	0.00
ATOM	296	1HH2	ARG	S	28	27.508	63.734	45.670	1.00	0.00
ATOM	297	2HH2	ARG	S	28	28.630	62.734	44.882	1.00	0.00
ATOM	298	N	ASN	S	29	34.176	57.709	45.084	1.00	0.00
ATOM	299	CA	ASN	S	29	34.803	56.758	46.017	1.00	0.00
ATOM	300	C	ASN	S	29	36.263	57.087	46.224	1.00	0.00
ATOM	301	O	ASN	S	29	36.725	57.490	47.287	1.00	0.00
ATOM	302	CB	ASN	S	29	34.720	55.310	45.509	1.00	0.00
ATOM	303	CG	ASN	S	29	34.669	54.318	46.651	1.00	0.00
ATOM	304	OD1	ASN	S	29	33.679	54.262	47.371	1.00	0.00
ATOM	305	ND2	ASN	S	29	35.723	53.511	46.750	1.00	0.00
ATOM	306	H	ASN	S	29	33.936	57.456	44.152	1.00	0.00
ATOM	307	1HD2	ASN	S	29	35.758	52.838	47.486	1.00	0.00
ATOM	308	2HD2	ASN	S	29	36.439	53.560	46.053	1.00	0.00
ATOM	309	N	ASN	S	30	36.988	56.936	45.113	1.00	0.00
ATOM	310	CA	ASN	S	30	38.398	57.327	45.120	1.00	0.00
ATOM	311	C	ASN	S	30	38.613	58.804	45.443	1.00	0.00
ATOM	312	O	ASN	S	30	39.524	59.200	46.152	1.00	0.00
ATOM	313	CB	ASN	S	30	39.048	56.915	43.796	1.00	0.00
ATOM	314	CG	ASN	S	30	40.558	56.873	43.936	1.00	0.00
ATOM	315	OD1	ASN	S	30	41.290	57.810	43.645	1.00	0.00
ATOM	316	ND2	ASN	S	30	41.016	55.706	44.409	1.00	0.00
ATOM	317	H	ASN	S	30	36.533	56.601	44.292	1.00	0.00
ATOM	318	1HD2	ASN	S	30	42.001	55.549	44.506	1.00	0.00
ATOM	319	2HD2	ASN	S	30	40.392	54.974	44.686	1.00	0.00
ATOM	320	N	TYR	S	31	37.660	59.600	44.957	1.00	0.00
ATOM	321	CA	TYR	S	31	37.669	61.050	45.108	1.00	0.00
ATOM	322	C	TYR	S	31	36.956	61.472	46.376	1.00	0.00
ATOM	323	O	TYR	S	31	36.161	62.412	46.365	1.00	0.00
ATOM	324	CB	TYR	S	31	36.941	61.672	43.915	1.00	0.00
ATOM	325	CG	TYR	S	31	37.620	62.900	43.372	1.00	0.00
ATOM	326	CD1	TYR	S	31	38.066	62.849	42.040	1.00	0.00
ATOM	327	CD2	TYR	S	31	37.775	64.049	44.176	1.00	0.00
ATOM	328	CE1	TYR	S	31	38.692	63.973	41.492	1.00	0.00
ATOM	329	CE2	TYR	S	31	38.401	65.178	43.627	1.00	0.00
ATOM	330	CZ	TYR	S	31	38.851	65.117	42.293	1.00	0.00
ATOM	331	OH	TYR	S	31	39.479	66.208	41.731	1.00	0.00
ATOM	332	H	TYR	S	31	36.861	59.148	44.577	1.00	0.00

ATOM	333	HH	TYR	S	31	39.688	66.855	42.401	1.00	0.00
ATOM	334	N	ALA	S	32	37.235	60.706	47.453	1.00	0.00
ATOM	335	CA	ALA	S	32	36.629	60.868	48.782	1.00	0.00
ATOM	336	C	ALA	S	32	35.110	60.918	48.806	1.00	0.00
ATOM	337	O	ALA	S	32	34.490	61.806	48.222	1.00	0.00
ATOM	338	CB	ALA	S	32	37.180	62.107	49.495	1.00	0.00
ATOM	339	H	ALA	S	32	37.940	60.002	47.347	1.00	0.00
ATOM	340	N	GLU	S	33	34.514	59.929	49.496	1.00	0.00
ATOM	341	CA	GLU	S	33	33.054	59.971	49.549	1.00	0.00
ATOM	342	C	GLU	S	33	32.496	60.963	50.557	1.00	0.00
ATOM	343	O	GLU	S	33	32.077	60.676	51.675	1.00	0.00
ATOM	344	CB	GLU	S	33	32.411	58.575	49.615	1.00	0.00
ATOM	345	CG	GLU	S	33	30.908	58.642	49.289	1.00	0.00
ATOM	346	CD	GLU	S	33	30.355	57.310	48.803	1.00	0.00
ATOM	347	OE1	GLU	S	33	29.337	56.853	49.316	1.00	0.00
ATOM	348	OE2	GLU	S	33	30.909	56.730	47.876	1.00	0.00
ATOM	349	H	GLU	S	33	35.076	59.217	49.915	1.00	0.00
ATOM	350	N	MET	S	34	32.513	62.198	50.046	1.00	0.00
ATOM	351	CA	MET	S	34	31.760	63.353	50.504	1.00	0.00
ATOM	352	C	MET	S	34	30.304	62.939	50.501	1.00	0.00
ATOM	353	O	MET	S	34	29.672	62.925	49.450	1.00	0.00
ATOM	354	CB	MET	S	34	32.106	64.404	49.443	1.00	0.00
ATOM	355	CG	MET	S	34	31.279	65.672	49.241	1.00	0.00
ATOM	356	SD	MET	S	34	31.960	66.555	47.819	1.00	0.00
ATOM	357	CE	MET	S	34	31.004	68.077	47.899	1.00	0.00
ATOM	358	H	MET	S	34	33.000	62.259	49.179	1.00	0.00
ATOM	359	N	HIS	S	35	29.838	62.514	51.684	1.00	0.00
ATOM	360	CA	HIS	S	35	28.544	61.829	51.749	1.00	0.00
ATOM	361	C	HIS	S	35	27.442	62.485	50.928	1.00	0.00
ATOM	362	O	HIS	S	35	27.149	63.671	51.046	1.00	0.00
ATOM	363	CB	HIS	S	35	28.139	61.628	53.218	1.00	0.00
ATOM	364	CG	HIS	S	35	26.715	61.133	53.323	1.00	0.00
ATOM	365	ND1	HIS	S	35	26.331	59.864	53.090	1.00	0.00
ATOM	366	CD2	HIS	S	35	25.588	61.900	53.628	1.00	0.00
ATOM	367	CE1	HIS	S	35	24.970	59.822	53.244	1.00	0.00
ATOM	368	NE2	HIS	S	35	24.515	61.078	53.572	1.00	0.00
ATOM	369	H	HIS	S	35	30.490	62.439	52.441	1.00	0.00
ATOM	370	HD1	HIS	S	35	26.906	59.101	52.864	1.00	0.00
ATOM	371	N	ALA	S	36	26.871	61.653	50.061	1.00	0.00
ATOM	372	CA	ALA	S	36	25.825	62.151	49.180	1.00	0.00
ATOM	373	C	ALA	S	36	24.777	61.087	48.948	1.00	0.00
ATOM	374	O	ALA	S	36	24.901	59.963	49.435	1.00	0.00
ATOM	375	CB	ALA	S	36	26.440	62.550	47.845	1.00	0.00
ATOM	376	H	ALA	S	36	27.151	60.693	50.060	1.00	0.00
ATOM	377	N	TYR	S	37	23.766	61.465	48.144	1.00	0.00
ATOM	378	CA	TYR	S	37	22.724	60.500	47.781	1.00	0.00
ATOM	379	C	TYR	S	37	23.148	59.631	46.596	1.00	0.00
ATOM	380	O	TYR	S	37	22.405	59.347	45.662	1.00	0.00
ATOM	381	CB	TYR	S	37	21.420	61.289	47.536	1.00	0.00
ATOM	382	CG	TYR	S	37	20.115	60.501	47.530	1.00	0.00
ATOM	383	CD1	TYR	S	37	18.934	61.209	47.842	1.00	0.00
ATOM	384	CD2	TYR	S	37	20.066	59.135	47.173	1.00	0.00
ATOM	385	CE1	TYR	S	37	17.686	60.583	47.674	1.00	0.00
ATOM	386	CE2	TYR	S	37	18.824	58.509	46.989	1.00	0.00
ATOM	387	CZ	TYR	S	37	17.650	59.259	47.190	1.00	0.00
ATOM	388	OH	TYR	S	37	16.436	58.678	46.863	1.00	0.00
ATOM	389	H	TYR	S	37	23.798	62.358	47.701	1.00	0.00
ATOM	390	HH	TYR	S	37	15.752	59.051	47.415	1.00	0.00
ATOM	391	N	MET	S	38	24.414	59.207	46.681	1.00	0.00
ATOM	392	CA	MET	S	38	25.010	58.455	45.589	1.00	0.00
ATOM	393	C	MET	S	38	24.245	57.183	45.296	1.00	0.00
ATOM	394	O	MET	S	38	23.695	56.520	46.185	1.00	0.00
ATOM	395	CB	MET	S	38	26.475	58.176	45.898	1.00	0.00
ATOM	396	CG	MET	S	38	27.283	57.815	44.653	1.00	0.00
ATOM	397	SD	MET	S	38	28.985	57.453	45.066	1.00	0.00
ATOM	398	CE	MET	S	38	29.343	59.022	45.866	1.00	0.00
ATOM	399	H	MET	S	38	24.946	59.407	47.499	1.00	0.00

ATOM	400	N	GLY	S	39	24.195	56.911	43.999	1.00	0.00
ATOM	401	CA	GLY	S	39	23.184	56.061	43.388	1.00	0.00
ATOM	402	C	GLY	S	39	22.824	54.737	44.003	1.00	0.00
ATOM	403	O	GLY	S	39	23.444	54.238	44.942	1.00	0.00
ATOM	404	H	GLY	S	39	24.833	57.436	43.441	1.00	0.00
ATOM	405	N	LYS	S	40	21.722	54.225	43.430	1.00	0.00
ATOM	406	CA	LYS	S	40	21.147	52.912	43.743	1.00	0.00
ATOM	407	C	LYS	S	40	20.192	52.472	42.649	1.00	0.00
ATOM	408	O	LYS	S	40	20.391	51.510	41.912	1.00	0.00
ATOM	409	CB	LYS	S	40	20.425	52.929	45.093	1.00	0.00
ATOM	410	CG	LYS	S	40	21.219	52.237	46.200	1.00	0.00
ATOM	411	CD	LYS	S	40	20.853	52.782	47.583	1.00	0.00
ATOM	412	CE	LYS	S	40	21.115	54.289	47.692	1.00	0.00
ATOM	413	NZ	LYS	S	40	22.522	54.568	47.403	1.00	0.00
ATOM	414	H	LYS	S	40	21.367	54.796	42.684	1.00	0.00
ATOM	415	1HZ	LYS	S	40	23.132	54.180	48.136	1.00	0.00
ATOM	416	2HZ	LYS	S	40	22.782	54.150	46.489	1.00	0.00
ATOM	417	3HZ	LYS	S	40	22.688	55.586	47.317	1.00	0.00
ATOM	418	N	PHE	S	41	19.117	53.259	42.585	1.00	0.00
ATOM	419	CA	PHE	S	41	18.236	53.146	41.432	1.00	0.00
ATOM	420	C	PHE	S	41	18.330	54.473	40.726	1.00	0.00
ATOM	421	O	PHE	S	41	18.772	55.456	41.317	1.00	0.00
ATOM	422	CB	PHE	S	41	16.796	52.869	41.873	1.00	0.00
ATOM	423	CG	PHE	S	41	16.723	51.550	42.608	1.00	0.00
ATOM	424	CD1	PHE	S	41	16.634	51.549	44.017	1.00	0.00
ATOM	425	CD2	PHE	S	41	16.753	50.342	41.876	1.00	0.00
ATOM	426	CE1	PHE	S	41	16.585	50.323	44.707	1.00	0.00
ATOM	427	CE2	PHE	S	41	16.704	49.115	42.565	1.00	0.00
ATOM	428	CZ	PHE	S	41	16.623	49.118	43.974	1.00	0.00
ATOM	429	H	PHE	S	41	19.031	54.092	43.132	1.00	0.00
ATOM	430	N	ASN	S	42	17.937	54.489	39.447	1.00	0.00
ATOM	431	CA	ASN	S	42	17.922	55.835	38.870	1.00	0.00
ATOM	432	C	ASN	S	42	16.532	56.395	38.761	1.00	0.00
ATOM	433	O	ASN	S	42	16.301	57.508	38.334	1.00	0.00
ATOM	434	CB	ASN	S	42	18.598	55.937	37.510	1.00	0.00
ATOM	435	CG	ASN	S	42	18.961	57.391	37.260	1.00	0.00
ATOM	436	OD1	ASN	S	42	19.220	58.191	38.163	1.00	0.00
ATOM	437	ND2	ASN	S	42	19.023	57.705	35.969	1.00	0.00
ATOM	438	H	ASN	S	42	17.492	53.689	39.037	1.00	0.00
ATOM	439	1HD2	ASN	S	42	19.488	58.547	35.687	1.00	0.00
ATOM	440	2HD2	ASN	S	42	18.602	57.115	35.286	1.00	0.00
ATOM	441	N	GLN	S	43	15.580	55.561	39.183	1.00	0.00
ATOM	442	CA	GLN	S	43	14.201	56.000	39.004	1.00	0.00
ATOM	443	C	GLN	S	43	13.874	57.157	39.943	1.00	0.00
ATOM	444	O	GLN	S	43	13.472	58.236	39.532	1.00	0.00
ATOM	445	CB	GLN	S	43	13.290	54.771	39.142	1.00	0.00
ATOM	446	CG	GLN	S	43	13.337	53.768	37.963	1.00	0.00
ATOM	447	CD	GLN	S	43	14.709	53.132	37.725	1.00	0.00
ATOM	448	OE1	GLN	S	43	15.521	52.928	38.626	1.00	0.00
ATOM	449	NE2	GLN	S	43	14.961	52.860	36.440	1.00	0.00
ATOM	450	H	GLN	S	43	15.765	54.636	39.516	1.00	0.00
ATOM	451	1HE2	GLN	S	43	15.869	52.531	36.172	1.00	0.00
ATOM	452	2HE2	GLN	S	43	14.264	52.973	35.734	1.00	0.00
ATOM	453	N	ARG	S	44	14.185	56.883	41.231	1.00	0.00
ATOM	454	CA	ARG	S	44	14.220	57.979	42.212	1.00	0.00
ATOM	455	C	ARG	S	44	15.401	58.924	42.040	1.00	0.00
ATOM	456	O	ARG	S	44	15.439	60.051	42.534	1.00	0.00
ATOM	457	CB	ARG	S	44	14.190	57.434	43.643	1.00	0.00
ATOM	458	CG	ARG	S	44	12.848	56.824	44.065	1.00	0.00
ATOM	459	CD	ARG	S	44	11.728	57.855	44.254	1.00	0.00
ATOM	460	NE	ARG	S	44	10.474	57.199	44.620	1.00	0.00
ATOM	461	CZ	ARG	S	44	9.290	57.530	44.041	1.00	0.00
ATOM	462	NH1	ARG	S	44	8.178	56.927	44.469	1.00	0.00
ATOM	463	NH2	ARG	S	44	9.194	58.415	43.056	1.00	0.00
ATOM	464	H	ARG	S	44	14.567	55.985	41.426	1.00	0.00
ATOM	465	HE	ARG	S	44	10.504	56.529	45.362	1.00	0.00
ATOM	466	1HH1	ARG	S	44	7.292	57.135	44.051	1.00	0.00

ATOM	467	2HH1	ARG	S	44	8.191	56.249	45.206	1.00	0.00
ATOM	468	1HH2	ARG	S	44	8.341	58.780	42.683	1.00	0.00
ATOM	469	2HH2	ARG	S	44	10.017	58.778	42.598	1.00	0.00
ATOM	470	N	GLY	S	45	16.382	58.404	41.279	1.00	0.00
ATOM	471	CA	GLY	S	45	17.380	59.317	40.735	1.00	0.00
ATOM	472	C	GLY	S	45	16.747	60.431	39.924	1.00	0.00
ATOM	473	O	GLY	S	45	17.057	61.597	40.130	1.00	0.00
ATOM	474	H	GLY	S	45	16.348	57.440	41.037	1.00	0.00
ATOM	475	N	VAL	S	46	15.829	60.035	39.032	1.00	0.00
ATOM	476	CA	VAL	S	46	15.150	60.995	38.163	1.00	0.00
ATOM	477	C	VAL	S	46	14.159	61.864	38.911	1.00	0.00
ATOM	478	O	VAL	S	46	14.122	63.074	38.720	1.00	0.00
ATOM	479	CB	VAL	S	46	14.493	60.298	36.956	1.00	0.00
ATOM	480	CG1	VAL	S	46	13.732	61.271	36.047	1.00	0.00
ATOM	481	CG2	VAL	S	46	15.534	59.534	36.138	1.00	0.00
ATOM	482	H	VAL	S	46	15.535	59.082	39.015	1.00	0.00
ATOM	483	N	ASP	S	47	13.392	61.245	39.831	1.00	0.00
ATOM	484	CA	ASP	S	47	12.411	62.048	40.587	1.00	0.00
ATOM	485	C	ASP	S	47	12.978	63.340	41.157	1.00	0.00
ATOM	486	O	ASP	S	47	12.491	64.449	40.984	1.00	0.00
ATOM	487	CB	ASP	S	47	11.827	61.279	41.774	1.00	0.00
ATOM	488	CG	ASP	S	47	10.947	60.124	41.357	1.00	0.00
ATOM	489	OD1	ASP	S	47	11.402	58.984	41.409	1.00	0.00
ATOM	490	OD2	ASP	S	47	9.779	60.335	41.045	1.00	0.00
ATOM	491	H	ASP	S	47	13.373	60.244	39.919	1.00	0.00
ATOM	492	N	ASP	S	48	14.109	63.161	41.848	1.00	0.00
ATOM	493	CA	ASP	S	48	14.615	64.338	42.561	1.00	0.00
ATOM	494	C	ASP	S	48	15.392	65.359	41.750	1.00	0.00
ATOM	495	O	ASP	S	48	16.005	66.279	42.298	1.00	0.00
ATOM	496	CB	ASP	S	48	15.478	64.017	43.777	1.00	0.00
ATOM	497	CG	ASP	S	48	14.946	62.968	44.734	1.00	0.00
ATOM	498	OD1	ASP	S	48	15.398	62.957	45.869	1.00	0.00
ATOM	499	OD2	ASP	S	48	14.171	62.096	44.360	1.00	0.00
ATOM	500	H	ASP	S	48	14.550	62.266	41.920	1.00	0.00
ATOM	501	N	ALA	S	49	15.341	65.195	40.423	1.00	0.00
ATOM	502	CA	ALA	S	49	15.638	66.376	39.632	1.00	0.00
ATOM	503	C	ALA	S	49	14.405	67.264	39.542	1.00	0.00
ATOM	504	O	ALA	S	49	14.470	68.477	39.717	1.00	0.00
ATOM	505	CB	ALA	S	49	16.146	65.979	38.250	1.00	0.00
ATOM	506	H	ALA	S	49	14.877	64.416	40.004	1.00	0.00
ATOM	507	N	LEU	S	50	13.251	66.609	39.349	1.00	0.00
ATOM	508	CA	LEU	S	50	11.961	67.293	39.494	1.00	0.00
ATOM	509	C	LEU	S	50	11.730	67.902	40.880	1.00	0.00
ATOM	510	O	LEU	S	50	11.120	68.955	41.050	1.00	0.00
ATOM	511	CB	LEU	S	50	10.830	66.336	39.085	1.00	0.00
ATOM	512	CG	LEU	S	50	9.393	66.834	39.288	1.00	0.00
ATOM	513	CD1	LEU	S	50	9.070	68.085	38.470	1.00	0.00
ATOM	514	CD2	LEU	S	50	8.382	65.713	39.052	1.00	0.00
ATOM	515	H	LEU	S	50	13.327	65.615	39.249	1.00	0.00
ATOM	516	N	LEU	S	51	12.268	67.200	41.880	1.00	0.00
ATOM	517	CA	LEU	S	51	12.269	67.783	43.222	1.00	0.00
ATOM	518	C	LEU	S	51	13.443	68.725	43.478	1.00	0.00
ATOM	519	O	LEU	S	51	13.441	69.570	44.366	1.00	0.00
ATOM	520	CB	LEU	S	51	12.199	66.650	44.250	1.00	0.00
ATOM	521	CG	LEU	S	51	11.837	67.074	45.676	1.00	0.00
ATOM	522	CD1	LEU	S	51	10.499	67.814	45.740	1.00	0.00
ATOM	523	CD2	LEU	S	51	11.870	65.882	46.633	1.00	0.00
ATOM	524	H	LEU	S	51	12.729	66.340	41.659	1.00	0.00
ATOM	525	N	SER	S	52	14.478	68.527	42.646	1.00	0.00
ATOM	526	CA	SER	S	52	15.717	69.293	42.802	1.00	0.00
ATOM	527	C	SER	S	52	16.382	69.163	44.172	1.00	0.00
ATOM	528	O	SER	S	52	17.100	70.044	44.650	1.00	0.00
ATOM	529	CB	SER	S	52	15.470	70.751	42.408	1.00	0.00
ATOM	530	OG	SER	S	52	15.104	70.830	41.013	1.00	0.00
ATOM	531	H	SER	S	52	14.428	67.786	41.985	1.00	0.00
ATOM	532	HG	SER	S	52	14.497	70.087	40.888	1.00	0.00
ATOM	533	N	LEU	S	53	16.083	68.021	44.818	1.00	0.00

ATOM	534	CA	LEU	S	53	16.553	67.819	46.192	1.00	0.00
ATOM	535	C	LEU	S	53	18.029	67.472	46.265	1.00	0.00
ATOM	536	O	LEU	S	53	18.837	68.116	46.948	1.00	0.00
ATOM	537	CB	LEU	S	53	15.699	66.743	46.871	1.00	0.00
ATOM	538	CG	LEU	S	53	15.991	66.537	48.361	1.00	0.00
ATOM	539	CD1	LEU	S	53	15.662	67.780	49.190	1.00	0.00
ATOM	540	CD2	LEU	S	53	15.300	65.284	48.900	1.00	0.00
ATOM	541	H	LEU	S	53	15.589	67.288	44.348	1.00	0.00
ATOM	542	N	LYS	S	54	18.313	66.431	45.473	1.00	0.00
ATOM	543	CA	LYS	S	54	19.682	66.104	45.123	1.00	0.00
ATOM	544	C	LYS	S	54	20.319	67.291	44.410	1.00	0.00
ATOM	545	O	LYS	S	54	20.060	67.528	43.240	1.00	0.00
ATOM	546	CB	LYS	S	54	19.668	64.861	44.217	1.00	0.00
ATOM	547	CG	LYS	S	54	18.994	63.600	44.794	1.00	0.00
ATOM	548	CD	LYS	S	54	18.793	62.522	43.713	1.00	0.00
ATOM	549	CE	LYS	S	54	18.314	61.130	44.162	1.00	0.00
ATOM	550	NZ	LYS	S	54	16.869	61.052	44.445	1.00	0.00
ATOM	551	H	LYS	S	54	17.539	66.003	45.018	1.00	0.00
ATOM	552	1HZ	LYS	S	54	16.591	60.099	44.730	1.00	0.00
ATOM	553	2HZ	LYS	S	54	16.534	61.695	45.196	1.00	0.00
ATOM	554	3HZ	LYS	S	54	16.270	61.258	43.615	1.00	0.00
ATOM	555	N	THR	S	55	21.154	68.054	45.143	1.00	0.00
ATOM	556	CA	THR	S	55	21.900	69.109	44.435	1.00	0.00
ATOM	557	C	THR	S	55	23.157	68.599	43.719	1.00	0.00
ATOM	558	O	THR	S	55	24.316	68.847	44.086	1.00	0.00
ATOM	559	CB	THR	S	55	22.158	70.341	45.347	1.00	0.00
ATOM	560	OG1	THR	S	55	22.798	71.421	44.631	1.00	0.00
ATOM	561	CG2	THR	S	55	22.921	69.995	46.632	1.00	0.00
ATOM	562	H	THR	S	55	21.237	67.900	46.125	1.00	0.00
ATOM	563	HG1	THR	S	55	22.301	71.475	43.816	1.00	0.00
ATOM	564	N	GLY	S	56	22.849	67.854	42.645	1.00	0.00
ATOM	565	CA	GLY	S	56	23.861	67.238	41.787	1.00	0.00
ATOM	566	C	GLY	S	56	23.654	65.761	41.468	1.00	0.00
ATOM	567	O	GLY	S	56	23.102	64.986	42.238	1.00	0.00
ATOM	568	H	GLY	S	56	21.885	67.815	42.381	1.00	0.00
ATOM	569	N	LYS	S	57	24.181	65.342	40.299	1.00	0.00
ATOM	570	CA	LYS	S	57	24.323	63.907	39.974	1.00	0.00
ATOM	571	C	LYS	S	57	25.505	63.741	39.028	1.00	0.00
ATOM	572	O	LYS	S	57	25.544	64.573	38.140	1.00	0.00
ATOM	573	CB	LYS	S	57	23.013	63.463	39.290	1.00	0.00
ATOM	574	CG	LYS	S	57	22.955	62.029	38.748	1.00	0.00
ATOM	575	CD	LYS	S	57	21.593	61.603	38.192	1.00	0.00
ATOM	576	CE	LYS	S	57	21.683	60.349	37.310	1.00	0.00
ATOM	577	NZ	LYS	S	57	22.463	60.650	36.106	1.00	0.00
ATOM	578	H	LYS	S	57	24.285	66.058	39.594	1.00	0.00
ATOM	579	1HZ	LYS	S	57	23.284	60.017	36.018	1.00	0.00
ATOM	580	2HZ	LYS	S	57	21.844	60.581	35.269	1.00	0.00
ATOM	581	3HZ	LYS	S	57	22.787	61.640	36.153	1.00	0.00
ATOM	582	N	LEU	S	58	26.418	62.755	39.185	1.00	0.00
ATOM	583	CA	LEU	S	58	27.307	62.451	38.044	1.00	0.00
ATOM	584	C	LEU	S	58	26.672	61.398	37.128	1.00	0.00
ATOM	585	O	LEU	S	58	25.442	61.397	37.071	1.00	0.00
ATOM	586	CB	LEU	S	58	28.728	62.092	38.502	1.00	0.00
ATOM	587	CG	LEU	S	58	29.527	63.214	39.175	1.00	0.00
ATOM	588	CD1	LEU	S	58	30.911	62.736	39.587	1.00	0.00
ATOM	589	CD2	LEU	S	58	29.671	64.467	38.322	1.00	0.00
ATOM	590	H	LEU	S	58	26.401	62.136	39.972	1.00	0.00
ATOM	591	N	ASP	S	59	27.456	60.539	36.447	1.00	0.00
ATOM	592	CA	ASP	S	59	27.147	59.601	35.341	1.00	0.00
ATOM	593	C	ASP	S	59	28.002	60.068	34.175	1.00	0.00
ATOM	594	O	ASP	S	59	29.071	60.606	34.468	1.00	0.00
ATOM	595	CB	ASP	S	59	25.672	59.314	34.957	1.00	0.00
ATOM	596	CG	ASP	S	59	25.018	58.282	35.881	1.00	0.00
ATOM	597	OD1	ASP	S	59	24.241	58.668	36.736	1.00	0.00
ATOM	598	OD2	ASP	S	59	25.249	57.077	35.785	1.00	0.00
ATOM	599	H	ASP	S	59	28.423	60.615	36.663	1.00	0.00
ATOM	600	N	ALA	S	60	27.614	59.852	32.905	1.00	0.00

ATOM	601	CA	ALA	S	60	28.577	60.231	31.869	1.00	0.00
ATOM	602	C	ALA	S	60	27.935	60.744	30.598	1.00	0.00
ATOM	603	O	ALA	S	60	27.353	59.980	29.824	1.00	0.00
ATOM	604	CB	ALA	S	60	29.494	59.054	31.518	1.00	0.00
ATOM	605	H	ALA	S	60	26.689	59.608	32.606	1.00	0.00
ATOM	606	N	PHE	S	61	28.085	62.069	30.427	1.00	0.00
ATOM	607	CA	PHE	S	61	27.480	62.778	29.295	1.00	0.00
ATOM	608	C	PHE	S	61	25.986	62.535	29.062	1.00	0.00
ATOM	609	O	PHE	S	61	25.203	62.789	29.972	1.00	0.00
ATOM	610	CB	PHE	S	61	28.372	62.704	28.047	1.00	0.00
ATOM	611	CG	PHE	S	61	28.919	64.084	27.753	1.00	0.00
ATOM	612	CD1	PHE	S	61	30.070	64.536	28.434	1.00	0.00
ATOM	613	CD2	PHE	S	61	28.272	64.902	26.801	1.00	0.00
ATOM	614	CE1	PHE	S	61	30.590	65.814	28.149	1.00	0.00
ATOM	615	CE2	PHE	S	61	28.788	66.181	26.515	1.00	0.00
ATOM	616	CZ	PHE	S	61	29.946	66.622	27.189	1.00	0.00
ATOM	617	H	PHE	S	61	28.680	62.518	31.091	1.00	0.00
ATOM	618	N	ILE	S	62	25.583	62.066	27.853	1.00	0.00
ATOM	619	CA	ILE	S	62	24.149	62.070	27.463	1.00	0.00
ATOM	620	C	ILE	S	62	23.109	61.650	28.516	1.00	0.00
ATOM	621	O	ILE	S	62	22.069	62.275	28.753	1.00	0.00
ATOM	622	CB	ILE	S	62	23.988	61.303	26.130	1.00	0.00
ATOM	623	CG1	ILE	S	62	22.561	61.336	25.576	1.00	0.00
ATOM	624	CG2	ILE	S	62	24.513	59.861	26.222	1.00	0.00
ATOM	625	CD1	ILE	S	62	22.452	60.748	24.167	1.00	0.00
ATOM	626	H	ILE	S	62	26.266	61.798	27.175	1.00	0.00
ATOM	627	N	TYR	S	63	23.518	60.572	29.226	1.00	0.00
ATOM	628	CA	TYR	S	63	22.726	59.955	30.303	1.00	0.00
ATOM	629	C	TYR	S	63	22.093	60.894	31.311	1.00	0.00
ATOM	630	O	TYR	S	63	21.001	60.662	31.837	1.00	0.00
ATOM	631	CB	TYR	S	63	23.527	58.875	31.044	1.00	0.00
ATOM	632	CG	TYR	S	63	24.154	57.918	30.058	1.00	0.00
ATOM	633	CD1	TYR	S	63	23.350	57.294	29.082	1.00	0.00
ATOM	634	CD2	TYR	S	63	25.544	57.702	30.131	1.00	0.00
ATOM	635	CE1	TYR	S	63	23.967	56.503	28.104	1.00	0.00
ATOM	636	CE2	TYR	S	63	26.163	56.909	29.153	1.00	0.00
ATOM	637	CZ	TYR	S	63	25.367	56.345	28.138	1.00	0.00
ATOM	638	OH	TYR	S	63	25.970	55.612	27.132	1.00	0.00
ATOM	639	H	TYR	S	63	24.354	60.141	28.898	1.00	0.00
ATOM	640	HH	TYR	S	63	25.307	55.485	26.447	1.00	0.00
ATOM	641	N	ASP	S	64	22.788	62.014	31.540	1.00	0.00
ATOM	642	CA	ASP	S	64	22.055	63.172	32.047	1.00	0.00
ATOM	643	C	ASP	S	64	21.959	64.295	31.039	1.00	0.00
ATOM	644	O	ASP	S	64	20.877	64.736	30.670	1.00	0.00
ATOM	645	CB	ASP	S	64	22.646	63.766	33.328	1.00	0.00
ATOM	646	CG	ASP	S	64	22.127	63.143	34.610	1.00	0.00
ATOM	647	OD1	ASP	S	64	21.208	62.349	34.584	1.00	0.00
ATOM	648	OD2	ASP	S	64	22.634	63.434	35.683	1.00	0.00
ATOM	649	H	ASP	S	64	23.709	62.099	31.162	1.00	0.00
ATOM	650	N	ALA	S	65	23.150	64.784	30.648	1.00	0.00
ATOM	651	CA	ALA	S	65	23.274	66.129	30.071	1.00	0.00
ATOM	652	C	ALA	S	65	22.147	66.572	29.157	1.00	0.00
ATOM	653	O	ALA	S	65	21.497	67.608	29.361	1.00	0.00
ATOM	654	CB	ALA	S	65	24.597	66.257	29.313	1.00	0.00
ATOM	655	H	ALA	S	65	23.948	64.230	30.879	1.00	0.00
ATOM	656	N	ALA	S	66	21.973	65.695	28.154	1.00	0.00
ATOM	657	CA	ALA	S	66	20.917	65.881	27.171	1.00	0.00
ATOM	658	C	ALA	S	66	19.528	65.478	27.642	1.00	0.00
ATOM	659	O	ALA	S	66	18.645	66.325	27.773	1.00	0.00
ATOM	660	CB	ALA	S	66	21.257	65.137	25.877	1.00	0.00
ATOM	661	H	ALA	S	66	22.446	64.820	28.230	1.00	0.00
ATOM	662	N	VAL	S	67	19.324	64.175	27.868	1.00	0.00
ATOM	663	CA	VAL	S	67	17.963	63.640	28.041	1.00	0.00
ATOM	664	C	VAL	S	67	17.238	63.999	29.350	1.00	0.00
ATOM	665	O	VAL	S	67	16.011	63.968	29.498	1.00	0.00
ATOM	666	CB	VAL	S	67	18.000	62.110	27.831	1.00	0.00
ATOM	667	CG1	VAL	S	67	16.608	61.473	27.759	1.00	0.00

ATOM	668	CG2	VAL	S	67	18.812	61.744	26.585	1.00	0.00
ATOM	669	H	VAL	S	67	20.155	63.628	27.954	1.00	0.00
ATOM	670	N	LEU	S	68	18.059	64.289	30.363	1.00	0.00
ATOM	671	CA	LEU	S	68	17.502	64.343	31.715	1.00	0.00
ATOM	672	C	LEU	S	68	16.778	65.602	32.168	1.00	0.00
ATOM	673	O	LEU	S	68	17.357	66.641	32.494	1.00	0.00
ATOM	674	CH	LEU	S	68	18.546	63.971	32.771	1.00	0.00
ATOM	675	CG	LEU	S	68	17.926	63.569	34.115	1.00	0.00
ATOM	676	CD1	LEU	S	68	17.782	62.054	34.239	1.00	0.00
ATOM	677	CD2	LEU	S	68	18.632	64.213	35.311	1.00	0.00
ATOM	678	H	LEU	S	68	19.036	64.405	30.174	1.00	0.00
ATOM	679	N	ASN	S	69	15.462	65.380	32.317	1.00	0.00
ATOM	680	CA	ASN	S	69	14.682	66.115	33.324	1.00	0.00
ATOM	681	C	ASN	S	69	14.860	67.624	33.338	1.00	0.00
ATOM	682	O	ASN	S	69	15.334	68.265	34.281	1.00	0.00
ATOM	683	CB	ASN	S	69	14.876	65.517	34.732	1.00	0.00
ATOM	684	CG	ASN	S	69	13.834	66.011	35.731	1.00	0.00
ATOM	685	OD1	ASN	S	69	13.564	67.199	35.901	1.00	0.00
ATOM	686	ND2	ASN	S	69	13.209	65.034	36.392	1.00	0.00
ATOM	687	H	ASN	S	69	15.146	64.582	31.811	1.00	0.00
ATOM	688	1HD2	ASN	S	69	12.450	65.212	37.013	1.00	0.00
ATOM	689	2HD2	ASN	S	69	13.581	64.108	36.326	1.00	0.00
ATOM	690	N	TYR	S	70	14.378	68.202	32.239	1.00	0.00
ATOM	691	CA	TYR	S	70	14.141	69.635	32.371	1.00	0.00
ATOM	692	C	TYR	S	70	12.721	69.935	32.812	1.00	0.00
ATOM	693	O	TYR	S	70	12.062	70.864	32.365	1.00	0.00
ATOM	694	CB	TYR	S	70	14.584	70.352	31.092	1.00	0.00
ATOM	695	CG	TYR	S	70	16.089	70.220	31.019	1.00	0.00
ATOM	696	CD1	TYR	S	70	16.673	69.238	30.189	1.00	0.00
ATOM	697	CD2	TYR	S	70	16.867	71.064	31.834	1.00	0.00
ATOM	698	CE1	TYR	S	70	18.067	69.050	30.233	1.00	0.00
ATOM	699	CE2	TYR	S	70	18.254	70.874	31.876	1.00	0.00
ATOM	700	CZ	TYR	S	70	18.835	69.854	31.100	1.00	0.00
ATOM	701	OH	TYR	S	70	20.197	69.643	31.221	1.00	0.00
ATOM	702	H	TYR	S	70	14.068	67.633	31.477	1.00	0.00
ATOM	703	HH	TYR	S	70	20.444	68.870	30.702	1.00	0.00
ATOM	704	N	MET	S	71	12.241	69.060	33.705	1.00	0.00
ATOM	705	CA	MET	S	71	10.856	69.121	34.148	1.00	0.00
ATOM	706	C	MET	S	71	10.677	70.140	35.251	1.00	0.00
ATOM	707	O	MET	S	71	9.840	71.035	35.182	1.00	0.00
ATOM	708	CB	MET	S	71	10.379	67.727	34.565	1.00	0.00
ATOM	709	CG	MET	S	71	8.861	67.631	34.722	1.00	0.00
ATOM	710	SD	MET	S	71	8.328	66.008	35.290	1.00	0.00
ATOM	711	CE	MET	S	71	6.563	66.344	35.392	1.00	0.00
ATOM	712	H	MET	S	71	12.832	68.372	34.117	1.00	0.00
ATOM	713	N	ALA	S	72	11.564	70.041	36.250	1.00	0.00
ATOM	714	CA	ALA	S	72	11.576	71.110	37.255	1.00	0.00
ATOM	715	C	ALA	S	72	12.294	72.393	36.872	1.00	0.00
ATOM	716	O	ALA	S	72	13.016	73.001	37.667	1.00	0.00
ATOM	717	CB	ALA	S	72	12.153	70.650	38.587	1.00	0.00
ATOM	718	H	ALA	S	72	12.193	69.266	36.226	1.00	0.00
ATOM	719	N	GLY	S	73	12.027	72.817	35.638	1.00	0.00
ATOM	720	CA	GLY	S	73	12.465	74.143	35.240	1.00	0.00
ATOM	721	C	GLY	S	73	13.332	74.124	34.008	1.00	0.00
ATOM	722	O	GLY	S	73	13.088	73.418	33.034	1.00	0.00
ATOM	723	H	GLY	S	73	11.478	72.274	35.007	1.00	0.00
ATOM	724	N	ARG	S	74	14.360	74.974	34.123	1.00	0.00
ATOM	725	CA	ARG	S	74	15.378	75.000	33.083	1.00	0.00
ATOM	726	C	ARG	S	74	16.643	74.283	33.537	1.00	0.00
ATOM	727	O	ARG	S	74	17.587	74.129	32.781	1.00	0.00
ATOM	728	CB	ARG	S	74	15.704	76.460	32.711	1.00	0.00
ATOM	729	CG	ARG	S	74	16.665	76.621	31.522	1.00	0.00
ATOM	730	CD	ARG	S	74	17.615	77.816	31.652	1.00	0.00
ATOM	731	NE	ARG	S	74	18.925	77.500	31.074	1.00	0.00
ATOM	732	CZ	ARG	S	74	19.247	77.803	29.796	1.00	0.00
ATOM	733	NH1	ARG	S	74	20.434	77.440	29.332	1.00	0.00
ATOM	734	NH2	ARG	S	74	18.386	78.434	28.999	1.00	0.00

ATOM	735	H	ARG	S	74	14.551	75.395	35.010	1.00	0.00
ATOM	736	HE	ARG	S	74	19.579	76.970	31.639	1.00	0.00
ATOM	737	1HH1	ARG	S	74	20.687	77.543	28.370	1.00	0.00
ATOM	738	2HH1	ARG	S	74	21.110	77.038	29.959	1.00	0.00
ATOM	739	1HH2	ARG	S	74	18.627	78.668	28.056	1.00	0.00
ATOM	740	2HH2	ARG	S	74	17.483	78.683	29.338	1.00	0.00
ATOM	741	N	ASP	S	75	16.667	73.917	34.830	1.00	0.00
ATOM	742	CA	ASP	S	75	17.996	73.731	35.425	1.00	0.00
ATOM	743	C	ASP	S	75	18.868	72.543	34.998	1.00	0.00
ATOM	744	O	ASP	S	75	18.728	71.397	35.452	1.00	0.00
ATOM	745	CB	ASP	S	75	17.930	73.795	36.949	1.00	0.00
ATOM	746	CG	ASP	S	75	17.104	74.936	37.506	1.00	0.00
ATOM	747	OD1	ASP	S	75	17.639	75.989	37.840	1.00	0.00
ATOM	748	OD2	ASP	S	75	15.904	74.759	37.654	1.00	0.00
ATOM	749	H	ASP	S	75	15.904	74.095	35.449	1.00	0.00
ATOM	750	N	GLU	S	76	19.790	72.922	34.096	1.00	0.00
ATOM	751	CA	GLU	S	76	20.919	72.104	33.667	1.00	0.00
ATOM	752	C	GLU	S	76	21.994	71.991	34.732	1.00	0.00
ATOM	753	O	GLU	S	76	22.141	70.971	35.395	1.00	0.00
ATOM	754	CB	GLU	S	76	21.541	72.604	32.343	1.00	0.00
ATOM	755	CG	GLU	S	76	20.833	73.731	31.566	1.00	0.00
ATOM	756	CD	GLU	S	76	21.155	75.124	32.105	1.00	0.00
ATOM	757	OE1	GLU	S	76	20.994	75.399	33.288	1.00	0.00
ATOM	758	OE2	GLU	S	76	21.553	75.980	31.326	1.00	0.00
ATOM	759	H	GLU	S	76	19.692	73.855	33.751	1.00	0.00
ATOM	760	N	GLY	S	77	22.752	73.085	34.878	1.00	0.00
ATOM	761	CA	GLY	S	77	23.709	73.150	35.985	1.00	0.00
ATOM	762	C	GLY	S	77	24.952	72.335	35.766	1.00	0.00
ATOM	763	O	GLY	S	77	25.123	71.235	36.279	1.00	0.00
ATOM	764	H	GLY	S	77	22.522	73.883	34.318	1.00	0.00
ATOM	765	N	CYS	S	78	25.796	72.913	34.922	1.00	0.00
ATOM	766	CA	CYS	S	78	27.074	72.263	34.645	1.00	0.00
ATOM	767	C	CYS	S	78	28.198	73.047	35.301	1.00	0.00
ATOM	768	O	CYS	S	78	27.910	74.017	36.006	1.00	0.00
ATOM	769	CB	CYS	S	78	27.254	72.184	33.133	1.00	0.00
ATOM	770	SG	CYS	S	78	25.766	71.558	32.307	1.00	0.00
ATOM	771	H	CYS	S	78	25.629	73.849	34.633	1.00	0.00
ATOM	772	N	LYS	S	79	29.454	72.664	34.976	1.00	0.00
ATOM	773	CA	LYS	S	79	30.691	73.416	35.270	1.00	0.00
ATOM	774	C	LYS	S	79	31.413	72.872	36.491	1.00	0.00
ATOM	775	O	LYS	S	79	31.303	73.321	37.638	1.00	0.00
ATOM	776	CB	LYS	S	79	30.491	74.948	35.231	1.00	0.00
ATOM	777	CG	LYS	S	79	31.526	75.894	35.835	1.00	0.00
ATOM	778	CD	LYS	S	79	30.985	77.325	35.753	1.00	0.00
ATOM	779	CE	LYS	S	79	31.629	78.290	36.748	1.00	0.00
ATOM	780	NZ	LYS	S	79	31.324	77.841	38.110	1.00	0.00
ATOM	781	H	LYS	S	79	29.486	71.697	34.738	1.00	0.00
ATOM	782	1HZ	LYS	S	79	31.656	76.874	38.257	1.00	0.00
ATOM	783	2HZ	LYS	S	79	31.752	78.465	38.816	1.00	0.00
ATOM	784	3HZ	LYS	S	79	30.300	77.804	38.274	1.00	0.00
ATOM	785	N	LEU	S	80	32.146	71.813	36.109	1.00	0.00
ATOM	786	CA	LEU	S	80	32.530	70.704	36.971	1.00	0.00
ATOM	787	C	LEU	S	80	33.643	70.988	37.959	1.00	0.00
ATOM	788	O	LEU	S	80	34.730	70.432	37.901	1.00	0.00
ATOM	789	CB	LEU	S	80	32.828	69.531	36.039	1.00	0.00
ATOM	790	CG	LEU	S	80	32.710	68.132	36.631	1.00	0.00
ATOM	791	CD1	LEU	S	80	31.386	67.909	37.361	1.00	0.00
ATOM	792	CD2	LEU	S	80	32.929	67.095	35.532	1.00	0.00
ATOM	793	H	LEU	S	80	32.381	71.742	35.139	1.00	0.00
ATOM	794	N	VAL	S	81	33.263	71.875	38.903	1.00	0.00
ATOM	795	CA	VAL	S	81	34.214	72.605	39.758	1.00	0.00
ATOM	796	C	VAL	S	81	35.477	71.875	40.184	1.00	0.00
ATOM	797	O	VAL	S	81	36.559	72.444	40.204	1.00	0.00
ATOM	798	CB	VAL	S	81	33.493	73.223	40.977	1.00	0.00
ATOM	799	CG1	VAL	S	81	34.420	73.921	41.982	1.00	0.00
ATOM	800	CG2	VAL	S	81	32.428	74.211	40.516	1.00	0.00
ATOM	801	H	VAL	S	81	32.301	72.135	38.809	1.00	0.00

ATOM	802	N	THR	S	82	35.316	70.602	40.530	1.00	0.00
ATOM	803	CA	THR	S	82	36.520	69.896	40.963	1.00	0.00
ATOM	804	C	THR	S	82	36.522	68.488	40.430	1.00	0.00
ATOM	805	O	THR	S	82	37.449	67.995	39.802	1.00	0.00
ATOM	806	CB	THR	S	82	36.551	69.865	42.491	1.00	0.00
ATOM	807	OG1	THR	S	82	35.195	69.785	42.964	1.00	0.00
ATOM	808	CG2	THR	S	82	37.257	71.072	43.114	1.00	0.00
ATOM	809	H	THR	S	82	34.439	70.147	40.388	1.00	0.00
ATOM	810	HG1	THR	S	82	35.263	69.861	43.917	1.00	0.00
ATOM	811	N	ILE	S	83	35.389	67.857	40.774	1.00	0.00
ATOM	812	CA	ILE	S	83	35.343	66.406	40.820	1.00	0.00
ATOM	813	C	ILE	S	83	35.730	65.690	39.539	1.00	0.00
ATOM	814	O	ILE	S	83	36.363	64.644	39.563	1.00	0.00
ATOM	815	CB	ILE	S	83	33.985	65.979	41.398	1.00	0.00
ATOM	816	CG1	ILE	S	83	34.001	64.545	41.913	1.00	0.00
ATOM	817	CG2	ILE	S	83	32.836	66.206	40.406	1.00	0.00
ATOM	818	CD1	ILE	S	83	32.680	64.200	42.590	1.00	0.00
ATOM	819	H	ILE	S	83	34.656	68.393	41.182	1.00	0.00
ATOM	820	N	GLY	S	84	35.364	66.293	38.402	1.00	0.00
ATOM	821	CA	GLY	S	84	35.698	65.580	37.168	1.00	0.00
ATOM	822	C	GLY	S	84	37.077	65.861	36.606	1.00	0.00
ATOM	823	O	GLY	S	84	37.524	65.245	35.643	1.00	0.00
ATOM	824	H	GLY	S	84	35.002	67.223	38.430	1.00	0.00
ATOM	825	N	SER	S	85	37.754	66.831	37.224	1.00	0.00
ATOM	826	CA	SER	S	85	39.103	67.088	36.741	1.00	0.00
ATOM	827	C	SER	S	85	40.196	66.206	37.330	1.00	0.00
ATOM	828	O	SER	S	85	41.329	66.159	36.861	1.00	0.00
ATOM	829	CB	SER	S	85	39.373	68.579	36.848	1.00	0.00
ATOM	830	OG	SER	S	85	38.148	69.284	36.564	1.00	0.00
ATOM	831	H	SER	S	85	37.362	67.452	37.901	1.00	0.00
ATOM	832	HG	SER	S	85	37.788	68.927	35.743	1.00	0.00
ATOM	833	N	GLY	S	86	39.782	65.413	38.324	1.00	0.00
ATOM	834	CA	GLY	S	86	40.406	64.098	38.339	1.00	0.00
ATOM	835	C	GLY	S	86	39.816	63.238	37.231	1.00	0.00
ATOM	836	O	GLY	S	86	38.739	62.655	37.352	1.00	0.00
ATOM	837	H	GLY	S	86	38.992	65.624	38.892	1.00	0.00
ATOM	838	N	LYS	S	87	40.556	63.203	36.113	1.00	0.00
ATOM	839	CA	LYS	S	87	40.049	62.410	34.986	1.00	0.00
ATOM	840	C	LYS	S	87	39.928	60.918	35.246	1.00	0.00
ATOM	841	O	LYS	S	87	39.059	60.227	34.704	1.00	0.00
ATOM	842	CB	LYS	S	87	40.889	62.615	33.714	1.00	0.00
ATOM	843	CG	LYS	S	87	40.274	62.033	32.422	1.00	0.00
ATOM	844	CD	LYS	S	87	41.047	60.882	31.742	1.00	0.00
ATOM	845	CE	LYS	S	87	40.996	59.480	32.384	1.00	0.00
ATOM	846	NZ	LYS	S	87	39.639	58.919	32.358	1.00	0.00
ATOM	847	H	LYS	S	87	41.338	63.825	36.057	1.00	0.00
ATOM	848	1HZ	LYS	S	87	39.548	58.068	32.952	1.00	0.00
ATOM	849	2HZ	LYS	S	87	38.923	59.611	32.640	1.00	0.00
ATOM	850	3HZ	LYS	S	87	39.406	58.670	31.387	1.00	0.00
ATOM	851	N	VAL	S	88	40.906	60.427	36.026	1.00	0.00
ATOM	852	CA	VAL	S	88	41.104	58.975	36.124	1.00	0.00
ATOM	853	C	VAL	S	88	40.245	58.362	37.217	1.00	0.00
ATOM	854	O	VAL	S	88	40.697	57.902	38.259	1.00	0.00
ATOM	855	CB	VAL	S	88	42.593	58.637	36.316	1.00	0.00
ATOM	856	CG1	VAL	S	88	42.867	57.152	36.050	1.00	0.00
ATOM	857	CG2	VAL	S	88	43.492	59.516	35.442	1.00	0.00
ATOM	858	H	VAL	S	88	41.394	61.070	36.623	1.00	0.00
ATOM	859	N	PHE	S	89	38.947	58.485	36.960	1.00	0.00
ATOM	860	CA	PHE	S	89	37.955	58.413	38.031	1.00	0.00
ATOM	861	C	PHE	S	89	36.565	58.084	37.501	1.00	0.00
ATOM	862	O	PHE	S	89	35.719	57.470	38.162	1.00	0.00
ATOM	863	CB	PHE	S	89	37.869	59.768	38.742	1.00	0.00
ATOM	864	CG	PHE	S	89	38.953	60.007	39.766	1.00	0.00
ATOM	865	CD1	PHE	S	89	40.123	60.707	39.400	1.00	0.00
ATOM	866	CD2	PHE	S	89	38.764	59.551	41.087	1.00	0.00
ATOM	867	CE1	PHE	S	89	41.113	60.969	40.365	1.00	0.00
ATOM	868	CE2	PHE	S	89	39.750	59.820	42.055	1.00	0.00

ATOM	869	CZ	PHE	S	89	40.913	60.527	41.688	1.00	0.00
ATOM	870	H	PHE	S	89	38.696	58.685	36.014	1.00	0.00
ATOM	871	N	ALA	S	90	36.375	58.576	36.279	1.00	0.00
ATOM	872	CA	ALA	S	90	35.008	58.727	35.851	1.00	0.00
ATOM	873	C	ALA	S	90	34.774	58.235	34.451	1.00	0.00
ATOM	874	O	ALA	S	90	33.924	57.370	34.220	1.00	0.00
ATOM	875	CB	ALA	S	90	34.628	60.200	35.941	1.00	0.00
ATOM	876	H	ALA	S	90	37.131	58.885	35.712	1.00	0.00
ATOM	877	N	SER	S	91	35.498	58.903	33.529	1.00	0.00
ATOM	878	CA	SER	S	91	35.294	58.720	32.093	1.00	0.00
ATOM	879	C	SER	S	91	36.303	59.548	31.294	1.00	0.00
ATOM	880	O	SER	S	91	37.175	60.215	31.856	1.00	0.00
ATOM	881	CB	SER	S	91	33.843	59.074	31.732	1.00	0.00
ATOM	882	OG	SER	S	91	33.374	58.246	30.663	1.00	0.00
ATOM	883	H	SER	S	91	36.156	59.596	33.820	1.00	0.00
ATOM	884	HG	SER	S	91	32.463	58.051	30.895	1.00	0.00
ATOM	885	N	THR	S	92	36.171	59.491	29.954	1.00	0.00
ATOM	886	CA	THR	S	92	37.181	60.090	29.064	1.00	0.00
ATOM	887	C	THR	S	92	36.570	60.520	27.716	1.00	0.00
ATOM	888	O	THR	S	92	35.387	60.297	27.452	1.00	0.00
ATOM	889	CB	THR	S	92	38.333	59.071	28.866	1.00	0.00
ATOM	890	OG1	THR	S	92	38.515	58.246	30.036	1.00	0.00
ATOM	891	CG2	THR	S	92	39.672	59.717	28.509	1.00	0.00
ATOM	892	H	THR	S	92	35.403	58.982	29.560	1.00	0.00
ATOM	893	HG1	THR	S	92	37.743	57.674	30.050	1.00	0.00
ATOM	894	N	GLY	S	93	37.394	61.118	26.838	1.00	0.00
ATOM	895	CA	GLY	S	93	37.063	61.027	25.415	1.00	0.00
ATOM	896	C	GLY	S	93	37.102	59.588	24.943	1.00	0.00
ATOM	897	O	GLY	S	93	37.438	58.686	25.716	1.00	0.00
ATOM	898	H	GLY	S	93	38.315	61.335	27.147	1.00	0.00
ATOM	899	N	TYR	S	94	36.706	59.408	23.679	1.00	0.00
ATOM	900	CA	TYR	S	94	36.531	58.024	23.231	1.00	0.00
ATOM	901	C	TYR	S	94	37.493	57.677	22.112	1.00	0.00
ATOM	902	O	TYR	S	94	38.180	58.554	21.586	1.00	0.00
ATOM	903	CB	TYR	S	94	35.133	57.753	22.660	1.00	0.00
ATOM	904	CG	TYR	S	94	33.943	58.480	23.254	1.00	0.00
ATOM	905	CD1	TYR	S	94	33.886	58.972	24.578	1.00	0.00
ATOM	906	CD2	TYR	S	94	32.851	58.608	22.384	1.00	0.00
ATOM	907	CE1	TYR	S	94	32.685	59.536	25.049	1.00	0.00
ATOM	908	CE2	TYR	S	94	31.660	59.178	22.839	1.00	0.00
ATOM	909	CZ	TYR	S	94	31.578	59.593	24.176	1.00	0.00
ATOM	910	OH	TYR	S	94	30.350	60.036	24.621	1.00	0.00
ATOM	911	H	TYR	S	94	36.484	60.220	23.139	1.00	0.00
ATOM	912	HH	TYR	S	94	29.962	60.600	23.928	1.00	0.00
ATOM	913	N	GLY	S	95	37.465	56.402	21.672	1.00	0.00
ATOM	914	CA	GLY	S	95	37.841	56.165	20.271	1.00	0.00
ATOM	915	C	GLY	S	95	38.438	54.798	19.991	1.00	0.00
ATOM	916	O	GLY	S	95	38.497	53.966	20.906	1.00	0.00
ATOM	917	H	GLY	S	95	37.010	55.705	22.228	1.00	0.00
ATOM	918	N	ILE	S	96	38.887	54.651	18.724	1.00	0.00
ATOM	919	CA	ILE	S	96	39.271	53.342	18.188	1.00	0.00
ATOM	920	C	ILE	S	96	40.610	52.785	18.620	1.00	0.00
ATOM	921	O	ILE	S	96	40.868	51.578	18.502	1.00	0.00
ATOM	922	CB	ILE	S	96	39.132	53.285	16.651	1.00	0.00
ATOM	923	CG1	ILE	S	96	40.215	54.068	15.901	1.00	0.00
ATOM	924	CG2	ILE	S	96	37.739	53.765	16.230	1.00	0.00
ATOM	925	CD1	ILE	S	96	41.445	53.238	15.519	1.00	0.00
ATOM	926	H	ILE	S	96	38.882	55.462	18.143	1.00	0.00
ATOM	927	N	ALA	S	97	41.460	53.710	19.107	1.00	0.00
ATOM	928	CA	ALA	S	97	42.791	53.251	19.499	1.00	0.00
ATOM	929	C	ALA	S	97	42.748	52.110	20.492	1.00	0.00
ATOM	930	O	ALA	S	97	41.833	51.938	21.297	1.00	0.00
ATOM	931	CB	ALA	S	97	43.670	54.390	20.006	1.00	0.00
ATOM	932	H	ALA	S	97	41.172	54.656	19.227	1.00	0.00
ATOM	933	N	ILE	S	98	43.711	51.210	20.276	1.00	0.00
ATOM	934	CA	ILE	S	98	43.448	49.845	20.725	1.00	0.00
ATOM	935	C	ILE	S	98	44.463	49.310	21.688	1.00	0.00

ATOM	936	O	ILE	S	98	45.672	49.486	21.519	1.00	0.00
ATOM	937	CB	ILE	S	98	43.323	48.844	19.568	1.00	0.00
ATOM	938	CG1	ILE	S	98	44.277	49.065	18.385	1.00	0.00
ATOM	939	CG2	ILE	S	98	41.870	48.755	19.122	1.00	0.00
ATOM	940	CD1	ILE	S	98	43.820	50.105	17.352	1.00	0.00
ATOM	941	H	ILE	S	98	44.496	51.476	19.719	1.00	0.00
ATOM	942	N	GLN	S	99	43.900	48.594	22.670	1.00	0.00
ATOM	943	CA	GLN	S	99	44.708	47.780	23.577	1.00	0.00
ATOM	944	C	GLN	S	99	45.915	48.502	24.175	1.00	0.00
ATOM	945	O	GLN	S	99	45.815	49.664	24.556	1.00	0.00
ATOM	946	CB	GLN	S	99	45.073	46.479	22.868	1.00	0.00
ATOM	947	CG	GLN	S	99	43.911	45.741	22.210	1.00	0.00
ATOM	948	CD	GLN	S	99	44.491	44.457	21.690	1.00	0.00
ATOM	949	OE1	GLN	S	99	44.690	44.258	20.493	1.00	0.00
ATOM	950	NE2	GLN	S	99	44.860	43.629	22.670	1.00	0.00
ATOM	951	H	GLN	S	99	42.900	48.570	22.664	1.00	0.00
ATOM	952	1HE2	GLN	S	99	45.332	42.757	22.571	1.00	0.00
ATOM	953	2HE2	GLN	S	99	44.692	43.952	23.603	1.00	0.00
ATOM	954	N	LYS	S	100	47.060	47.811	24.190	1.00	0.00
ATOM	955	CA	LYS	S	100	48.340	48.507	24.267	1.00	0.00
ATOM	956	C	LYS	S	100	49.201	48.097	23.068	1.00	0.00
ATOM	957	O	LYS	S	100	50.416	47.959	23.128	1.00	0.00
ATOM	958	CB	LYS	S	100	48.992	48.198	25.621	1.00	0.00
ATOM	959	CG	LYS	S	100	49.863	49.311	26.224	1.00	0.00
ATOM	960	CD	LYS	S	100	49.107	50.555	26.720	1.00	0.00
ATOM	961	CE	LYS	S	100	48.076	50.270	27.823	1.00	0.00
ATOM	962	NZ	LYS	S	100	47.492	51.508	28.355	1.00	0.00
ATOM	963	H	LYS	S	100	47.076	46.819	24.084	1.00	0.00
ATOM	964	1HZ	LYS	S	100	46.789	51.304	29.089	1.00	0.00
ATOM	965	2HZ	LYS	S	100	47.066	52.118	27.637	1.00	0.00
ATOM	966	3HZ	LYS	S	100	48.200	52.042	28.897	1.00	0.00
ATOM	967	N	ASP	S	101	48.457	47.835	21.963	1.00	0.00
ATOM	968	CA	ASP	S	101	48.959	46.952	20.896	1.00	0.00
ATOM	969	C	ASP	S	101	50.017	47.491	19.941	1.00	0.00
ATOM	970	O	ASP	S	101	50.317	48.679	19.904	1.00	0.00
ATOM	971	CB	ASP	S	101	47.776	46.387	20.100	1.00	0.00
ATOM	972	CG	ASP	S	101	47.999	44.911	19.831	1.00	0.00
ATOM	973	OD1	ASP	S	101	48.389	44.540	18.729	1.00	0.00
ATOM	974	OD2	ASP	S	101	47.782	44.111	20.731	1.00	0.00
ATOM	975	H	ASP	S	101	47.491	48.095	21.953	1.00	0.00
ATOM	976	N	SER	S	102	50.571	46.560	19.147	1.00	0.00
ATOM	977	CA	SER	S	102	51.574	46.936	18.144	1.00	0.00
ATOM	978	C	SER	S	102	51.303	46.460	16.714	1.00	0.00
ATOM	979	O	SER	S	102	52.129	46.591	15.800	1.00	0.00
ATOM	980	CB	SER	S	102	52.964	46.486	18.598	1.00	0.00
ATOM	981	OG	SER	S	102	53.362	47.153	19.813	1.00	0.00
ATOM	982	H	SER	S	102	50.284	45.604	19.249	1.00	0.00
ATOM	983	HG	SER	S	102	52.603	47.676	20.084	1.00	0.00
ATOM	984	N	GLY	S	103	50.093	45.892	16.551	1.00	0.00
ATOM	985	CA	GLY	S	103	49.648	45.634	15.184	1.00	0.00
ATOM	986	C	GLY	S	103	49.051	46.858	14.517	1.00	0.00
ATOM	987	O	GLY	S	103	49.553	47.356	13.496	1.00	0.00
ATOM	988	H	GLY	S	103	49.531	45.620	17.332	1.00	0.00
ATOM	989	N	TRP	S	104	47.952	47.280	15.167	1.00	0.00
ATOM	990	CA	TRP	S	104	47.125	48.393	14.687	1.00	0.00
ATOM	991	C	TRP	S	104	47.502	49.709	15.369	1.00	0.00
ATOM	992	O	TRP	S	104	47.716	50.766	14.776	1.00	0.00
ATOM	993	CB	TRP	S	104	45.666	47.989	14.957	1.00	0.00
ATOM	994	CG	TRP	S	104	44.623	48.376	13.919	1.00	0.00
ATOM	995	CD1	TRP	S	104	43.246	48.498	14.181	1.00	0.00
ATOM	996	CD2	TRP	S	104	44.744	48.613	12.494	1.00	0.00
ATOM	997	NE1	TRP	S	104	42.533	48.780	13.057	1.00	0.00
ATOM	998	CE2	TRP	S	104	43.419	48.859	11.991	1.00	0.00
ATOM	999	CE3	TRP	S	104	45.835	48.620	11.598	1.00	0.00
ATOM	1000	CZ2	TRP	S	104	43.218	49.108	10.616	1.00	0.00
ATOM	1001	CZ3	TRP	S	104	45.621	48.864	10.226	1.00	0.00
ATOM	1002	CH2	TRP	S	104	44.320	49.109	9.737	1.00	0.00

ATOM	1003	H	TRP	S	104	47.668	46.707	15.934	1.00	0.00
ATOM	1004	HE1	TRP	S	104	41.554	48.899	12.981	1.00	0.00
ATOM	1005	N	LYS	S	105	47.638	49.597	16.717	1.00	0.00
ATOM	1006	CA	LYS	S	105	47.976	50.818	17.459	1.00	0.00
ATOM	1007	C	LYS	S	105	49.259	51.497	16.993	1.00	0.00
ATOM	1008	O	LYS	S	105	49.341	52.716	16.896	1.00	0.00
ATOM	1009	CB	LYS	S	105	47.971	50.631	18.990	1.00	0.00
ATOM	1010	CG	LYS	S	105	47.254	51.783	19.720	1.00	0.00
ATOM	1011	CD	LYS	S	105	47.955	52.379	20.956	1.00	0.00
ATOM	1012	CE	LYS	S	105	48.075	51.540	22.243	1.00	0.00
ATOM	1013	NZ	LYS	S	105	46.807	51.410	22.972	1.00	0.00
ATOM	1014	H	LYS	S	105	47.383	48.741	17.166	1.00	0.00
ATOM	1015	1HZ	LYS	S	105	46.200	52.250	22.946	1.00	0.00
ATOM	1016	2HZ	LYS	S	105	46.985	51.264	23.985	1.00	0.00
ATOM	1017	3HZ	LYS	S	105	46.245	50.584	22.703	1.00	0.00
ATOM	1018	N	ARG	S	106	50.261	50.671	16.648	1.00	0.00
ATOM	1019	CA	ARG	S	106	51.404	51.262	15.943	1.00	0.00
ATOM	1020	C	ARG	S	106	51.192	51.458	14.434	1.00	0.00
ATOM	1021	O	ARG	S	106	51.752	50.778	13.569	1.00	0.00
ATOM	1022	CB	ARG	S	106	52.674	50.472	16.261	1.00	0.00
ATOM	1023	CG	ARG	S	106	53.006	50.343	17.758	1.00	0.00
ATOM	1024	CD	ARG	S	106	53.783	51.492	18.421	1.00	0.00
ATOM	1025	NE	ARG	S	106	52.971	52.649	18.806	1.00	0.00
ATOM	1026	CZ	ARG	S	106	53.125	53.225	20.029	1.00	0.00
ATOM	1027	NH1	ARG	S	106	52.463	54.337	20.317	1.00	0.00
ATOM	1028	NH2	ARG	S	106	53.932	52.698	20.951	1.00	0.00
ATOM	1029	H	ARG	S	106	50.121	49.684	16.692	1.00	0.00
ATOM	1030	HE	ARG	S	106	52.358	53.098	18.144	1.00	0.00
ATOM	1031	1HH1	ARG	S	106	52.502	54.793	21.200	1.00	0.00
ATOM	1032	2HH1	ARG	S	106	51.906	54.799	19.603	1.00	0.00
ATOM	1033	1HH2	ARG	S	106	54.069	53.164	21.825	1.00	0.00
ATOM	1034	2HH2	ARG	S	106	54.414	51.840	20.792	1.00	0.00
ATOM	1035	N	GLN	S	107	50.344	52.470	14.204	1.00	0.00
ATOM	1036	CA	GLN	S	107	49.863	53.021	12.932	1.00	0.00
ATOM	1037	C	GLN	S	107	48.911	54.152	13.298	1.00	0.00
ATOM	1038	O	GLN	S	107	48.974	55.295	12.833	1.00	0.00
ATOM	1039	CB	GLN	S	107	49.111	51.994	12.067	1.00	0.00
ATOM	1040	CG	GLN	S	107	48.685	52.536	10.692	1.00	0.00
ATOM	1041	CD	GLN	S	107	47.396	51.865	10.257	1.00	0.00
ATOM	1042	OE1	GLN	S	107	46.416	51.845	10.989	1.00	0.00
ATOM	1043	NE2	GLN	S	107	47.434	51.294	9.054	1.00	0.00
ATOM	1044	H	GLN	S	107	50.093	52.968	15.035	1.00	0.00
ATOM	1045	1HE2	GLN	S	107	46.668	50.743	8.730	1.00	0.00
ATOM	1046	2HE2	GLN	S	107	48.231	51.392	8.461	1.00	0.00
ATOM	1047	N	VAL	S	108	48.034	53.764	14.238	1.00	0.00
ATOM	1048	CA	VAL	S	108	47.092	54.702	14.843	1.00	0.00
ATOM	1049	C	VAL	S	108	47.704	55.952	15.472	1.00	0.00
ATOM	1050	O	VAL	S	108	47.102	57.025	15.408	1.00	0.00
ATOM	1051	CB	VAL	S	108	46.132	53.964	15.798	1.00	0.00
ATOM	1052	CG1	VAL	S	108	45.127	54.884	16.498	1.00	0.00
ATOM	1053	CG2	VAL	S	108	45.374	52.882	15.025	1.00	0.00
ATOM	1054	H	VAL	S	108	47.968	52.778	14.401	1.00	0.00
ATOM	1055	N	ASP	S	109	48.925	55.834	16.025	1.00	0.00
ATOM	1056	CA	ASP	S	109	49.694	57.029	16.426	1.00	0.00
ATOM	1057	C	ASP	S	109	49.580	58.213	15.473	1.00	0.00
ATOM	1058	O	ASP	S	109	49.420	59.378	15.821	1.00	0.00
ATOM	1059	CB	ASP	S	109	51.183	56.698	16.538	1.00	0.00
ATOM	1060	CG	ASP	S	109	51.480	55.902	17.785	1.00	0.00
ATOM	1061	OD1	ASP	S	109	51.953	56.480	18.755	1.00	0.00
ATOM	1062	OD2	ASP	S	109	51.261	54.695	17.799	1.00	0.00
ATOM	1063	H	ASP	S	109	49.293	54.915	16.177	1.00	0.00
ATOM	1064	N	LEU	S	110	49.678	57.839	14.188	1.00	0.00
ATOM	1065	CA	LEU	S	110	49.443	58.873	13.185	1.00	0.00
ATOM	1066	C	LEU	S	110	47.995	59.353	13.165	1.00	0.00
ATOM	1067	O	LEU	S	110	47.692	60.520	13.406	1.00	0.00
ATOM	1068	CB	LEU	S	110	49.922	58.371	11.819	1.00	0.00
ATOM	1069	CG	LEU	S	110	50.131	59.472	10.779	1.00	0.00

ATOM	1070	CD1	LEU	S	110	51.175	60.499	11.224	1.00	0.00
ATOM	1071	CD2	LEU	S	110	50.446	58.892	9.400	1.00	0.00
ATOM	1072	H	LEU	S	110	49.695	56.858	13.980	1.00	0.00
ATOM	1073	N	ALA	S	111	47.106	58.376	12.892	1.00	0.00
ATOM	1074	CA	ALA	S	111	45.657	58.607	12.780	1.00	0.00
ATOM	1075	C	ALA	S	111	44.990	59.653	13.669	1.00	0.00
ATOM	1076	O	ALA	S	111	44.345	60.568	13.171	1.00	0.00
ATOM	1077	CB	ALA	S	111	44.892	57.290	12.920	1.00	0.00
ATOM	1078	H	ALA	S	111	47.472	57.479	12.653	1.00	0.00
ATOM	1079	N	ILE	S	112	45.164	59.520	14.994	1.00	0.00
ATOM	1080	CA	ILE	S	112	44.490	60.472	15.892	1.00	0.00
ATOM	1081	C	ILE	S	112	44.690	61.959	15.548	1.00	0.00
ATOM	1082	O	ILE	S	112	43.781	62.773	15.394	1.00	0.00
ATOM	1083	CB	ILE	S	112	44.836	60.110	17.355	1.00	0.00
ATOM	1084	CG1	ILE	S	112	44.206	61.051	18.385	1.00	0.00
ATOM	1085	CG2	ILE	S	112	46.352	59.980	17.582	1.00	0.00
ATOM	1086	CD1	ILE	S	112	44.343	60.520	19.814	1.00	0.00
ATOM	1087	H	ILE	S	112	45.642	58.699	15.305	1.00	0.00
ATOM	1088	N	LEU	S	113	45.981	62.273	15.352	1.00	0.00
ATOM	1089	CA	LEU	S	113	46.331	63.634	14.942	1.00	0.00
ATOM	1090	C	LEU	S	113	46.027	63.887	13.473	1.00	0.00
ATOM	1091	O	LEU	S	113	45.802	64.997	13.007	1.00	0.00
ATOM	1092	CB	LEU	S	113	47.806	63.891	15.264	1.00	0.00
ATOM	1093	CG	LEU	S	113	48.242	65.355	15.141	1.00	0.00
ATOM	1094	CD1	LEU	S	113	47.464	66.271	16.089	1.00	0.00
ATOM	1095	CD2	LEU	S	113	49.754	65.507	15.310	1.00	0.00
ATOM	1096	H	LEU	S	113	46.647	61.526	15.356	1.00	0.00
ATOM	1097	N	GLN	S	114	46.017	62.764	12.740	1.00	0.00
ATOM	1098	CA	GLN	S	114	45.555	62.852	11.360	1.00	0.00
ATOM	1099	C	GLN	S	114	44.055	62.981	11.184	1.00	0.00
ATOM	1100	O	GLN	S	114	43.565	62.949	10.060	1.00	0.00
ATOM	1101	CB	GLN	S	114	46.038	61.656	10.538	1.00	0.00
ATOM	1102	CG	GLN	S	114	47.470	61.772	10.022	1.00	0.00
ATOM	1103	CD	GLN	S	114	47.546	62.702	8.826	1.00	0.00
ATOM	1104	OE1	GLN	S	114	46.591	63.340	8.393	1.00	0.00
ATOM	1105	NE2	GLN	S	114	48.760	62.773	8.269	1.00	0.00
ATOM	1106	H	GLN	S	114	46.132	61.855	13.138	1.00	0.00
ATOM	1107	1HE2	GLN	S	114	48.948	63.398	7.516	1.00	0.00
ATOM	1108	2HE2	GLN	S	114	49.467	62.176	8.649	1.00	0.00
ATOM	1109	N	LEU	S	115	43.294	63.159	12.284	1.00	0.00
ATOM	1110	CA	LEU	S	115	41.865	63.449	12.104	1.00	0.00
ATOM	1111	C	LEU	S	115	41.659	64.697	11.254	1.00	0.00
ATOM	1112	O	LEU	S	115	41.399	64.607	10.051	1.00	0.00
ATOM	1113	CB	LEU	S	115	41.151	63.503	13.460	1.00	0.00
ATOM	1114	CG	LEU	S	115	40.301	62.263	13.774	1.00	0.00
ATOM	1115	CD1	LEU	S	115	41.090	60.953	13.724	1.00	0.00
ATOM	1116	CD2	LEU	S	115	39.568	62.418	15.106	1.00	0.00
ATOM	1117	H	LEU	S	115	43.699	62.996	13.184	1.00	0.00
ATOM	1118	N	PHE	S	116	41.949	65.850	11.887	1.00	0.00
ATOM	1119	CA	PHE	S	116	42.256	67.030	11.072	1.00	0.00
ATOM	1120	C	PHE	S	116	43.417	66.739	10.138	1.00	0.00
ATOM	1121	O	PHE	S	116	44.210	65.835	10.389	1.00	0.00
ATOM	1122	CB	PHE	S	116	42.612	68.234	11.950	1.00	0.00
ATOM	1123	CG	PHE	S	116	41.426	68.713	12.755	1.00	0.00
ATOM	1124	CD1	PHE	S	116	41.358	68.411	14.133	1.00	0.00
ATOM	1125	CD2	PHE	S	116	40.412	69.465	12.121	1.00	0.00
ATOM	1126	CE1	PHE	S	116	40.261	68.868	14.889	1.00	0.00
ATOM	1127	CE2	PHE	S	116	39.314	69.923	12.876	1.00	0.00
ATOM	1128	CZ	PHE	S	116	39.250	69.620	14.253	1.00	0.00
ATOM	1129	H	PHE	S	116	41.978	65.878	12.883	1.00	0.00
ATOM	1130	N	GLY	S	117	43.469	67.518	9.055	1.00	0.00
ATOM	1131	CA	GLY	S	117	44.564	67.256	8.133	1.00	0.00
ATOM	1132	C	GLY	S	117	44.148	67.061	6.689	1.00	0.00
ATOM	1133	O	GLY	S	117	44.975	67.169	5.783	1.00	0.00
ATOM	1134	H	GLY	S	117	42.793	68.234	8.900	1.00	0.00
ATOM	1135	N	ASP	S	118	42.849	66.775	6.503	1.00	0.00
ATOM	1136	CA	ASP	S	118	42.378	66.502	5.142	1.00	0.00

ATOM	1137	C	ASP	S	118	41.245	67.378	4.630	1.00	0.00
ATOM	1138	O	ASP	S	118	41.159	67.699	3.446	1.00	0.00
ATOM	1139	CB	ASP	S	118	42.054	65.007	4.959	1.00	0.00
ATOM	1140	CG	ASP	S	118	40.852	64.504	5.760	1.00	0.00
ATOM	1141	OD1	ASP	S	118	40.196	63.578	5.311	1.00	0.00
ATOM	1142	OD2	ASP	S	118	40.571	64.975	6.857	1.00	0.00
ATOM	1143	H	ASP	S	118	42.250	66.696	7.296	1.00	0.00
ATOM	1144	N	GLY	S	119	40.392	67.760	5.588	1.00	0.00
ATOM	1145	CA	GLY	S	119	39.146	68.433	5.235	1.00	0.00
ATOM	1146	C	GLY	S	119	37.994	67.567	5.699	1.00	0.00
ATOM	1147	O	GLY	S	119	38.109	66.346	5.730	1.00	0.00
ATOM	1148	H	GLY	S	119	40.511	67.416	6.516	1.00	0.00
ATOM	1149	N	GLU	S	120	36.897	68.227	6.096	1.00	0.00
ATOM	1150	CA	GLU	S	120	35.812	67.552	6.828	1.00	0.00
ATOM	1151	C	GLU	S	120	36.212	66.816	8.101	1.00	0.00
ATOM	1152	O	GLU	S	120	36.528	65.617	8.145	1.00	0.00
ATOM	1153	CB	GLU	S	120	34.898	66.689	5.932	1.00	0.00
ATOM	1154	CG	GLU	S	120	33.740	66.075	6.740	1.00	0.00
ATOM	1155	CD	GLU	S	120	32.630	65.549	5.858	1.00	0.00
ATOM	1156	OE1	GLU	S	120	32.671	64.406	5.411	1.00	0.00
ATOM	1157	OE2	GLU	S	120	31.667	66.272	5.647	1.00	0.00
ATOM	1158	H	GLU	S	120	36.924	69.220	6.012	1.00	0.00
ATOM	1159	N	MET	S	121	36.152	67.604	9.176	1.00	0.00
ATOM	1160	CA	MET	S	121	35.877	66.980	10.465	1.00	0.00
ATOM	1161	C	MET	S	121	34.520	67.469	10.914	1.00	0.00
ATOM	1162	O	MET	S	121	33.773	68.004	10.099	1.00	0.00
ATOM	1163	CB	MET	S	121	36.966	67.275	11.490	1.00	0.00
ATOM	1164	CG	MET	S	121	38.083	66.240	11.401	1.00	0.00
ATOM	1165	SD	MET	S	121	39.087	66.227	12.889	1.00	0.00
ATOM	1166	CE	MET	S	121	37.793	65.770	14.053	1.00	0.00
ATOM	1167	H	MET	S	121	35.972	68.583	9.065	1.00	0.00
ATOM	1168	N	GLU	S	122	34.200	67.255	12.198	1.00	0.00
ATOM	1169	CA	GLU	S	122	33.031	67.868	12.838	1.00	0.00
ATOM	1170	C	GLU	S	122	31.650	67.366	12.433	1.00	0.00
ATOM	1171	O	GLU	S	122	30.779	67.227	13.277	1.00	0.00
ATOM	1172	CB	GLU	S	122	33.147	69.399	12.868	1.00	0.00
ATOM	1173	CG	GLU	S	122	34.276	69.818	13.820	1.00	0.00
ATOM	1174	CD	GLU	S	122	34.660	71.277	13.646	1.00	0.00
ATOM	1175	OE1	GLU	S	122	35.846	71.548	13.484	1.00	0.00
ATOM	1176	OE2	GLU	S	122	33.791	72.147	13.668	1.00	0.00
ATOM	1177	H	GLU	S	122	34.826	66.716	12.764	1.00	0.00
ATOM	1178	N	GLU	S	123	31.448	66.997	11.145	1.00	0.00
ATOM	1179	CA	GLU	S	123	30.161	66.346	10.811	1.00	0.00
ATOM	1180	C	GLU	S	123	29.875	65.117	11.656	1.00	0.00
ATOM	1181	O	GLU	S	123	28.766	64.847	12.113	1.00	0.00
ATOM	1182	CB	GLU	S	123	30.046	65.907	9.333	1.00	0.00
ATOM	1183	CG	GLU	S	123	28.596	65.538	8.927	1.00	0.00
ATOM	1184	CD	GLU	S	123	28.426	64.162	8.262	1.00	0.00
ATOM	1185	OE1	GLU	S	123	27.388	63.913	7.647	1.00	0.00
ATOM	1186	OE2	GLU	S	123	29.312	63.311	8.312	1.00	0.00
ATOM	1187	H	GLU	S	123	32.130	67.214	10.449	1.00	0.00
ATOM	1188	N	LEU	S	124	30.965	64.353	11.804	1.00	0.00
ATOM	1189	CA	LEU	S	124	30.872	63.071	12.497	1.00	0.00
ATOM	1190	C	LEU	S	124	30.817	63.249	14.004	1.00	0.00
ATOM	1191	O	LEU	S	124	30.121	62.565	14.747	1.00	0.00
ATOM	1192	CB	LEU	S	124	32.068	62.183	12.137	1.00	0.00
ATOM	1193	CG	LEU	S	124	32.648	62.336	10.722	1.00	0.00
ATOM	1194	CD1	LEU	S	124	34.074	61.795	10.650	1.00	0.00
ATOM	1195	CD2	LEU	S	124	31.766	61.732	9.631	1.00	0.00
ATOM	1196	H	LEU	S	124	31.849	64.676	11.473	1.00	0.00
ATOM	1197	N	GLU	S	125	31.605	64.233	14.449	1.00	0.00
ATOM	1198	CA	GLU	S	125	31.795	64.397	15.884	1.00	0.00
ATOM	1199	C	GLU	S	125	30.717	65.224	16.592	1.00	0.00
ATOM	1200	O	GLU	S	125	30.331	64.973	17.730	1.00	0.00
ATOM	1201	CB	GLU	S	125	33.221	64.920	16.120	1.00	0.00
ATOM	1202	CG	GLU	S	125	34.376	63.963	15.728	1.00	0.00
ATOM	1203	CD	GLU	S	125	34.526	63.709	14.226	1.00	0.00

ATOM	1204	OE1	GLU	S	125	34.298	64.601	13.422	1.00	0.00
ATOM	1205	OE2	GLU	S	125	34.873	62.605	13.828	1.00	0.00
ATOM	1206	H	GLU	S	125	32.164	64.731	13.783	1.00	0.00
ATOM	1207	N	ALA	S	126	30.229	66.235	15.872	1.00	0.00
ATOM	1208	CA	ALA	S	126	29.213	67.084	16.485	1.00	0.00
ATOM	1209	C	ALA	S	126	27.818	66.486	16.529	1.00	0.00
ATOM	1210	O	ALA	S	126	27.037	66.751	17.444	1.00	0.00
ATOM	1211	CB	ALA	S	126	29.144	68.446	15.792	1.00	0.00
ATOM	1212	H	ALA	S	126	30.546	66.399	14.942	1.00	0.00
ATOM	1213	N	LEU	S	127	27.516	65.655	15.521	1.00	0.00
ATOM	1214	CA	LEU	S	127	26.113	65.238	15.416	1.00	0.00
ATOM	1215	C	LEU	S	127	25.641	64.098	16.309	1.00	0.00
ATOM	1216	O	LEU	S	127	24.553	63.538	16.155	1.00	0.00
ATOM	1217	CB	LEU	S	127	25.703	64.985	13.962	1.00	0.00
ATOM	1218	CG	LEU	S	127	25.273	66.252	13.209	1.00	0.00
ATOM	1219	CD1	LEU	S	127	26.445	67.142	12.785	1.00	0.00
ATOM	1220	CD2	LEU	S	127	24.366	65.916	12.025	1.00	0.00
ATOM	1221	H	LEU	S	127	28.245	65.345	14.913	1.00	0.00
ATOM	1222	N	TRP	S	128	26.499	63.743	17.279	1.00	0.00
ATOM	1223	CA	TRP	S	128	26.044	62.945	18.425	1.00	0.00
ATOM	1224	C	TRP	S	128	25.475	63.754	19.594	1.00	0.00
ATOM	1225	O	TRP	S	128	24.333	63.612	20.034	1.00	0.00
ATOM	1226	CB	TRP	S	128	27.189	62.050	18.920	1.00	0.00
ATOM	1227	CG	TRP	S	128	26.680	60.737	19.476	1.00	0.00
ATOM	1228	CD1	TRP	S	128	25.812	59.856	18.824	1.00	0.00
ATOM	1229	CD2	TRP	S	128	26.992	60.088	20.732	1.00	0.00
ATOM	1230	NE1	TRP	S	128	25.576	58.743	19.558	1.00	0.00
ATOM	1231	CE2	TRP	S	128	26.280	58.838	20.750	1.00	0.00
ATOM	1232	CE3	TRP	S	128	27.802	60.439	21.831	1.00	0.00
ATOM	1233	CZ2	TRP	S	128	26.389	57.974	21.860	1.00	0.00
ATOM	1234	CZ3	TRP	S	128	27.903	59.566	22.935	1.00	0.00
ATOM	1235	CH2	TRP	S	128	27.201	58.342	22.952	1.00	0.00
ATOM	1236	H	TRP	S	128	27.441	64.075	17.221	1.00	0.00
ATOM	1237	HE1	TRP	S	128	25.019	58.001	19.222	1.00	0.00
ATOM	1238	N	LEU	S	129	26.339	64.625	20.146	1.00	0.00
ATOM	1239	CA	LEU	S	129	25.974	65.195	21.449	1.00	0.00
ATOM	1240	C	LEU	S	129	26.073	66.696	21.620	1.00	0.00
ATOM	1241	O	LEU	S	129	25.309	67.308	22.363	1.00	0.00
ATOM	1242	CB	LEU	S	129	26.772	64.524	22.563	1.00	0.00
ATOM	1243	CG	LEU	S	129	25.939	63.688	23.529	1.00	0.00
ATOM	1244	CD1	LEU	S	129	26.842	62.790	24.370	1.00	0.00
ATOM	1245	CD2	LEU	S	129	25.015	64.547	24.394	1.00	0.00
ATOM	1246	H	LEU	S	129	27.243	64.726	19.723	1.00	0.00
ATOM	1247	N	THR	S	130	27.064	67.268	20.917	1.00	0.00
ATOM	1248	CA	THR	S	130	27.492	68.640	21.224	1.00	0.00
ATOM	1249	C	THR	S	130	28.073	68.787	22.649	1.00	0.00
ATOM	1250	O	THR	S	130	27.777	68.016	23.563	1.00	0.00
ATOM	1251	CB	THR	S	130	26.370	69.669	20.917	1.00	0.00
ATOM	1252	OG1	THR	S	130	25.415	69.166	19.955	1.00	0.00
ATOM	1253	CG2	THR	S	130	26.943	71.009	20.447	1.00	0.00
ATOM	1254	H	THR	S	130	27.560	66.698	20.262	1.00	0.00
ATOM	1255	HG1	THR	S	130	25.891	68.572	19.374	1.00	0.00
ATOM	1256	N	GLY	S	131	28.970	69.768	22.821	1.00	0.00
ATOM	1257	CA	GLY	S	131	29.616	69.858	24.130	1.00	0.00
ATOM	1258	C	GLY	S	131	28.848	70.704	25.130	1.00	0.00
ATOM	1259	O	GLY	S	131	28.282	71.743	24.793	1.00	0.00
ATOM	1260	H	GLY	S	131	29.091	70.464	22.117	1.00	0.00
ATOM	1261	N	ILE	S	132	28.852	70.230	26.391	1.00	0.00
ATOM	1262	CA	ILE	S	132	28.154	70.973	27.454	1.00	0.00
ATOM	1263	C	ILE	S	132	28.816	70.916	28.842	1.00	0.00
ATOM	1264	O	ILE	S	132	28.885	71.906	29.591	1.00	0.00
ATOM	1265	CB	ILE	S	132	26.660	70.570	27.480	1.00	0.00
ATOM	1266	CG1	ILE	S	132	25.848	71.320	28.544	1.00	0.00
ATOM	1267	CG2	ILE	S	132	26.495	69.050	27.621	1.00	0.00
ATOM	1268	CD1	ILE	S	132	24.357	70.973	28.534	1.00	0.00
ATOM	1269	H	ILE	S	132	29.188	69.303	26.552	1.00	0.00
ATOM	1270	N	CYS	S	133	29.328	69.701	29.123	1.00	0.00

ATOM	1271	CA	CYS	S	133	29.945	69.421	30.415	1.00	0.00
ATOM	1272	C	CYS	S	133	31.338	68.864	30.260	1.00	0.00
ATOM	1273	O	CYS	S	133	31.593	67.675	30.422	1.00	0.00
ATOM	1274	CB	CYS	S	133	29.086	68.449	31.227	1.00	0.00
ATOM	1275	SG	CYS	S	133	27.434	69.123	31.546	1.00	0.00
ATOM	1276	H	CYS	S	133	29.185	68.951	28.477	1.00	0.00
ATOM	1277	N	HIS	S	134	32.242	69.787	29.902	1.00	0.00
ATOM	1278	CA	HIS	S	134	33.629	69.332	29.867	1.00	0.00
ATOM	1279	C	HIS	S	134	34.344	69.363	31.218	1.00	0.00
ATOM	1280	O	HIS	S	134	33.816	69.844	32.226	1.00	0.00
ATOM	1281	CB	HIS	S	134	34.414	69.995	28.711	1.00	0.00
ATOM	1282	CG	HIS	S	134	34.398	69.097	27.481	1.00	0.00
ATOM	1283	ND1	HIS	S	134	34.896	69.425	26.262	1.00	0.00
ATOM	1284	CD2	HIS	S	134	33.881	67.800	27.396	1.00	0.00
ATOM	1285	CE1	HIS	S	134	34.692	68.357	25.421	1.00	0.00
ATOM	1286	NE2	HIS	S	134	34.069	67.356	26.129	1.00	0.00
ATOM	1287	H	HIS	S	134	31.958	70.744	29.945	1.00	0.00
ATOM	1288	HD1	HIS	S	134	35.327	70.265	25.986	1.00	0.00
ATOM	1289	N	ASN	S	135	35.547	68.766	31.124	1.00	0.00
ATOM	1290	CA	ASN	S	135	36.329	68.169	32.209	1.00	0.00
ATOM	1291	C	ASN	S	135	36.632	69.030	33.435	1.00	0.00
ATOM	1292	O	ASN	S	135	35.783	69.152	34.318	1.00	0.00
ATOM	1293	CB	ASN	S	135	37.603	67.588	31.569	1.00	0.00
ATOM	1294	CG	ASN	S	135	38.202	66.477	32.407	1.00	0.00
ATOM	1295	OD1	ASN	S	135	37.992	65.292	32.143	1.00	0.00
ATOM	1296	ND2	ASN	S	135	38.960	66.901	33.414	1.00	0.00
ATOM	1297	OXT	ASN	S	135	37.738	69.557	33.521	1.00	0.00
ATOM	1298	H	ASN	S	135	35.805	68.433	30.220	1.00	0.00
ATOM	1299	1HD2	ASN	S	135	39.441	66.278	34.024	1.00	0.00
ATOM	1300	2HD2	ASN	S	135	39.039	67.886	33.547	1.00	0.00
ATOM	1301	N	ASP	S	1	49.744	46.793	10.820	1.00	0.00
ATOM	1302	CA	ASP	S	1	48.635	46.352	9.972	1.00	0.00
ATOM	1303	C	ASP	S	1	47.639	45.810	10.963	1.00	0.00
ATOM	1304	O	ASP	S	1	47.716	46.309	12.078	1.00	0.00
ATOM	1305	CB	ASP	S	1	49.130	45.338	8.934	1.00	0.00
ATOM	1306	CG	ASP	S	1	48.054	45.176	7.883	1.00	0.00
ATOM	1307	OD1	ASP	S	1	47.751	44.061	7.486	1.00	0.00
ATOM	1308	OD2	ASP	S	1	47.468	46.171	7.490	1.00	0.00
ATOM	1309	1H	ASP	S	1	50.299	45.956	11.062	1.00	0.00
ATOM	1310	2H	ASP	S	1	49.324	47.136	11.715	1.00	0.00
ATOM	1311	3H	ASP	S	1	50.318	47.517	10.357	1.00	0.00
ATOM	1312	N	ASP	S	2	46.820	44.813	10.604	1.00	0.00
ATOM	1313	CA	ASP	S	2	46.003	44.088	11.579	1.00	0.00
ATOM	1314	C	ASP	S	2	45.233	43.023	10.818	1.00	0.00
ATOM	1315	O	ASP	S	2	45.835	42.266	10.061	1.00	0.00
ATOM	1316	CB	ASP	S	2	45.111	45.012	12.445	1.00	0.00
ATOM	1317	CG	ASP	S	2	44.375	44.208	13.501	1.00	0.00
ATOM	1318	OD1	ASP	S	2	43.184	44.418	13.675	1.00	0.00
ATOM	1319	OD2	ASP	S	2	44.963	43.313	14.093	1.00	0.00
ATOM	1320	H	ASP	S	2	46.873	44.427	9.681	1.00	0.00
ATOM	1321	N	HIS	S	3	43.896	43.011	10.969	1.00	0.00
ATOM	1322	CA	HIS	S	3	43.078	42.054	10.250	1.00	0.00
ATOM	1323	C	HIS	S	3	42.738	42.601	8.870	1.00	0.00
ATOM	1324	O	HIS	S	3	43.411	43.493	8.351	1.00	0.00
ATOM	1325	CB	HIS	S	3	41.855	41.741	11.126	1.00	0.00
ATOM	1326	CG	HIS	S	3	42.241	40.900	12.328	1.00	0.00
ATOM	1327	ND1	HIS	S	3	42.867	41.359	13.433	1.00	0.00
ATOM	1328	CD2	HIS	S	3	42.010	39.531	12.495	1.00	0.00
ATOM	1329	CE1	HIS	S	3	43.028	40.299	14.281	1.00	0.00
ATOM	1330	NE2	HIS	S	3	42.502	39.171	13.707	1.00	0.00
ATOM	1331	H	HIS	S	3	43.406	43.672	11.537	1.00	0.00
ATOM	1332	HD1	HIS	S	3	43.121	42.291	13.638	1.00	0.00
ATOM	1333	N	LEU	S	4	41.679	42.012	8.277	1.00	0.00
ATOM	1334	CA	LEU	S	4	41.189	42.493	6.982	1.00	0.00
ATOM	1335	C	LEU	S	4	39.892	43.283	7.111	1.00	0.00
ATOM	1336	O	LEU	S	4	39.687	44.312	6.491	1.00	0.00
ATOM	1337	CB	LEU	S	4	41.046	41.328	6.002	1.00	0.00

ATOM	1338	CG	LEU	S	4	41.124	41.773	4.540	1.00	0.00
ATOM	1339	CD1	LEU	S	4	42.483	42.396	4.211	1.00	0.00
ATOM	1340	CD2	LEU	S	4	40.768	40.638	3.580	1.00	0.00
ATOM	1341	H	LEU	S	4	41.204	41.299	8.784	1.00	0.00
ATOM	1342	N	SER	S	5	39.061	42.785	8.040	1.00	0.00
ATOM	1343	CA	SER	S	5	38.086	43.683	8.651	1.00	0.00
ATOM	1344	C	SER	S	5	38.266	43.497	10.136	1.00	0.00
ATOM	1345	O	SER	S	5	38.631	42.415	10.594	1.00	0.00
ATOM	1346	CB	SER	S	5	36.652	43.347	8.221	1.00	0.00
ATOM	1347	OG	SER	S	5	35.729	44.343	8.693	1.00	0.00
ATOM	1348	H	SER	S	5	39.174	41.889	8.469	1.00	0.00
ATOM	1349	HG	SER	S	5	36.004	45.161	8.283	1.00	0.00
ATOM	1350	N	ILE	S	6	38.058	44.573	10.898	1.00	0.00
ATOM	1351	CA	ILE	S	6	38.289	44.386	12.321	1.00	0.00
ATOM	1352	C	ILE	S	6	37.041	44.553	13.154	1.00	0.00
ATOM	1353	O	ILE	S	6	36.376	45.590	13.243	1.00	0.00
ATOM	1354	CB	ILE	S	6	39.509	45.180	12.811	1.00	0.00
ATOM	1355	CG1	ILE	S	6	39.847	44.799	14.251	1.00	0.00
ATOM	1356	CG2	ILE	S	6	39.313	46.689	12.655	1.00	0.00
ATOM	1357	CD1	ILE	S	6	40.062	43.292	14.426	1.00	0.00
ATOM	1358	H	ILE	S	6	37.693	45.412	10.489	1.00	0.00
ATOM	1359	N	VAL	S	7	36.685	43.390	13.721	1.00	0.00
ATOM	1360	CA	VAL	S	7	35.401	43.253	14.408	1.00	0.00
ATOM	1361	C	VAL	S	7	35.372	44.145	15.628	1.00	0.00
ATOM	1362	O	VAL	S	7	36.364	44.293	16.333	1.00	0.00
ATOM	1363	CB	VAL	S	7	35.157	41.784	14.799	1.00	0.00
ATOM	1364	CG1	VAL	S	7	33.737	41.548	15.328	1.00	0.00
ATOM	1365	CG2	VAL	S	7	35.477	40.833	13.642	1.00	0.00
ATOM	1366	H	VAL	S	7	37.390	42.675	13.700	1.00	0.00
ATOM	1367	N	THR	S	8	34.210	44.750	15.853	1.00	0.00
ATOM	1368	CA	THR	S	8	34.063	45.457	17.114	1.00	0.00
ATOM	1369	C	THR	S	8	32.693	45.271	17.737	1.00	0.00
ATOM	1370	O	THR	S	8	31.712	44.900	17.088	1.00	0.00
ATOM	1371	CB	THR	S	8	34.414	46.950	16.995	1.00	0.00
ATOM	1372	OG1	THR	S	8	33.361	47.709	16.395	1.00	0.00
ATOM	1373	CG2	THR	S	8	35.751	47.284	16.326	1.00	0.00
ATOM	1374	H	THR	S	8	33.436	44.599	15.240	1.00	0.00
ATOM	1375	HG1	THR	S	8	33.504	47.639	15.443	1.00	0.00
ATOM	1376	N	LEU	S	9	32.635	45.560	19.042	1.00	0.00
ATOM	1377	CA	LEU	S	9	31.354	45.433	19.747	1.00	0.00
ATOM	1378	C	LEU	S	9	30.600	46.772	19.891	1.00	0.00
ATOM	1379	O	LEU	S	9	31.016	47.772	19.291	1.00	0.00
ATOM	1380	CB	LEU	S	9	31.585	44.720	21.094	1.00	0.00
ATOM	1381	CG	LEU	S	9	32.330	43.359	21.117	1.00	0.00
ATOM	1382	CD1	LEU	S	9	32.185	42.486	19.865	1.00	0.00
ATOM	1383	CD2	LEU	S	9	33.791	43.513	21.503	1.00	0.00
ATOM	1384	H	LEU	S	9	33.516	45.720	19.483	1.00	0.00
ATOM	1385	N	GLU	S	10	29.506	46.765	20.710	1.00	0.00
ATOM	1386	CA	GLU	S	10	28.582	47.901	20.917	1.00	0.00
ATOM	1387	C	GLU	S	10	27.429	47.495	21.850	1.00	0.00
ATOM	1388	O	GLU	S	10	27.438	46.364	22.346	1.00	0.00
ATOM	1389	CB	GLU	S	10	28.038	48.414	19.574	1.00	0.00
ATOM	1390	CG	GLU	S	10	26.969	47.549	18.895	1.00	0.00
ATOM	1391	CD	GLU	S	10	27.415	46.128	18.591	1.00	0.00
ATOM	1392	OE1	GLU	S	10	27.741	45.846	17.443	1.00	0.00
ATOM	1393	OE2	GLU	S	10	27.396	45.278	19.485	1.00	0.00
ATOM	1394	H	GLU	S	10	29.251	45.899	21.141	1.00	0.00
ATOM	1395	N	GLU	S	11	26.440	48.380	22.059	1.00	0.00
ATOM	1396	CA	GLU	S	11	25.271	47.952	22.834	1.00	0.00
ATOM	1397	C	GLU	S	11	23.963	48.403	22.209	1.00	0.00
ATOM	1398	O	GLU	S	11	23.938	49.142	21.222	1.00	0.00
ATOM	1399	CB	GLU	S	11	25.292	48.436	24.296	1.00	0.00
ATOM	1400	CG	GLU	S	11	26.631	48.458	25.043	1.00	0.00
ATOM	1401	CD	GLU	S	11	27.472	49.610	24.534	1.00	0.00
ATOM	1402	OE1	GLU	S	11	26.974	50.731	24.513	1.00	0.00
ATOM	1403	OE2	GLU	S	11	28.612	49.379	24.138	1.00	0.00
ATOM	1404	H	GLU	S	11	26.470	49.326	21.731	1.00	0.00

ATOM	1405	N	ALA	S	12	22.867	47.939	22.848	1.00	0.00
ATOM	1406	CA	ALA	S	12	21.536	48.436	22.493	1.00	0.00
ATOM	1407	C	ALA	S	12	20.925	49.575	23.329	1.00	0.00
ATOM	1408	O	ALA	S	12	20.366	50.503	22.745	1.00	0.00
ATOM	1409	CB	ALA	S	12	20.537	47.278	22.368	1.00	0.00
ATOM	1410	H	ALA	S	12	22.959	47.287	23.599	1.00	0.00
ATOM	1411	N	PRO	S	13	21.004	49.532	24.682	1.00	0.00
ATOM	1412	CA	PRO	S	13	20.454	50.678	25.413	1.00	0.00
ATOM	1413	C	PRO	S	13	21.219	51.987	25.232	1.00	0.00
ATOM	1414	O	PRO	S	13	22.229	52.215	25.905	1.00	0.00
ATOM	1415	CB	PRO	S	13	20.476	50.211	26.875	1.00	0.00
ATOM	1416	CG	PRO	S	13	20.632	48.692	26.834	1.00	0.00
ATOM	1417	CD	PRO	S	13	21.468	48.481	25.582	1.00	0.00
ATOM	1418	N	PHE	S	14	20.618	52.861	24.388	1.00	0.00
ATOM	1419	CA	PHE	S	14	20.975	54.269	24.116	1.00	0.00
ATOM	1420	C	PHE	S	14	21.665	54.447	22.786	1.00	0.00
ATOM	1421	O	PHE	S	14	21.248	55.205	21.918	1.00	0.00
ATOM	1422	CB	PHE	S	14	21.792	55.011	25.191	1.00	0.00
ATOM	1423	CG	PHE	S	14	20.913	55.522	26.309	1.00	0.00
ATOM	1424	CD1	PHE	S	14	20.618	54.690	27.411	1.00	0.00
ATOM	1425	CD2	PHE	S	14	20.416	56.842	26.237	1.00	0.00
ATOM	1426	CE1	PHE	S	14	19.822	55.187	28.461	1.00	0.00
ATOM	1427	CE2	PHE	S	14	19.620	57.342	27.286	1.00	0.00
ATOM	1428	CZ	PHE	S	14	19.335	56.510	28.390	1.00	0.00
ATOM	1429	H	PHE	S	14	19.915	52.441	23.809	1.00	0.00
ATOM	1430	N	VAL	S	15	22.749	53.669	22.607	1.00	0.00
ATOM	1431	CA	VAL	S	15	23.352	53.643	21.261	1.00	0.00
ATOM	1432	C	VAL	S	15	22.361	53.071	20.255	1.00	0.00
ATOM	1433	O	VAL	S	15	22.100	51.866	20.251	1.00	0.00
ATOM	1434	CB	VAL	S	15	24.671	52.851	21.260	1.00	0.00
ATOM	1435	CG1	VAL	S	15	25.348	52.868	19.883	1.00	0.00
ATOM	1436	CG2	VAL	S	15	25.619	53.364	22.348	1.00	0.00
ATOM	1437	H	VAL	S	15	22.981	52.979	23.296	1.00	0.00
ATOM	1438	N	ILE	S	16	21.751	54.033	19.549	1.00	0.00
ATOM	1439	CA	ILE	S	16	20.561	53.989	18.697	1.00	0.00
ATOM	1440	C	ILE	S	16	20.068	55.432	18.638	1.00	0.00
ATOM	1441	O	ILE	S	16	18.994	55.848	19.072	1.00	0.00
ATOM	1442	CB	ILE	S	16	19.483	52.965	19.151	1.00	0.00
ATOM	1443	CG1	ILE	S	16	18.337	52.862	18.137	1.00	0.00
ATOM	1444	CG2	ILE	S	16	18.941	53.214	20.571	1.00	0.00
ATOM	1445	CD1	ILE	S	16	17.372	51.708	18.417	1.00	0.00
ATOM	1446	H	ILE	S	16	22.135	54.934	19.748	1.00	0.00
ATOM	1447	N	VAL	S	17	21.016	56.240	18.153	1.00	0.00
ATOM	1448	CA	VAL	S	17	20.794	57.681	18.084	1.00	0.00
ATOM	1449	C	VAL	S	17	20.423	58.090	16.673	1.00	0.00
ATOM	1450	O	VAL	S	17	19.427	58.761	16.428	1.00	0.00
ATOM	1451	CB	VAL	S	17	22.027	58.433	18.608	1.00	0.00
ATOM	1452	CG1	VAL	S	17	21.865	59.956	18.543	1.00	0.00
ATOM	1453	CG2	VAL	S	17	22.351	57.971	20.032	1.00	0.00
ATOM	1454	H	VAL	S	17	21.871	55.819	17.854	1.00	0.00
ATOM	1455	N	GLU	S	18	21.230	57.576	15.720	1.00	0.00
ATOM	1456	CA	GLU	S	18	20.732	57.639	14.341	1.00	0.00
ATOM	1457	C	GLU	S	18	19.763	56.499	14.090	1.00	0.00
ATOM	1458	O	GLU	S	18	20.124	55.452	13.542	1.00	0.00
ATOM	1459	CB	GLU	S	18	21.874	57.598	13.308	1.00	0.00
ATOM	1460	CG	GLU	S	18	21.440	57.875	11.851	1.00	0.00
ATOM	1461	CD	GLU	S	18	22.247	57.085	10.814	1.00	0.00
ATOM	1462	OE1	GLU	S	18	22.923	56.121	11.143	1.00	0.00
ATOM	1463	OE2	GLU	S	18	22.173	57.391	9.635	1.00	0.00
ATOM	1464	H	GLU	S	18	22.060	57.078	15.979	1.00	0.00
ATOM	1465	N	SER	S	19	18.522	56.730	14.535	1.00	0.00
ATOM	1466	CA	SER	S	19	17.440	55.771	14.297	1.00	0.00
ATOM	1467	C	SER	S	19	16.844	56.073	12.912	1.00	0.00
ATOM	1468	O	SER	S	19	17.666	56.457	12.079	1.00	0.00
ATOM	1469	CB	SER	S	19	16.587	55.788	15.574	1.00	0.00
ATOM	1470	OG	SER	S	19	17.496	55.713	16.677	1.00	0.00
ATOM	1471	H	SER	S	19	18.379	57.601	15.014	1.00	0.00

ATOM	1472	HG	SER	S	19	16.986	55.434	17.439	1.00	0.00
ATOM	1473	N	VAL	S	20	15.532	55.950	12.582	1.00	0.00
ATOM	1474	CA	VAL	S	20	14.345	55.479	13.312	1.00	0.00
ATOM	1475	C	VAL	S	20	13.948	54.131	12.728	1.00	0.00
ATOM	1476	O	VAL	S	20	14.323	53.850	11.589	1.00	0.00
ATOM	1477	CB	VAL	S	20	13.218	56.524	13.171	1.00	0.00
ATOM	1478	CG1	VAL	S	20	11.993	56.225	14.043	1.00	0.00
ATOM	1479	CG2	VAL	S	20	13.741	57.934	13.463	1.00	0.00
ATOM	1480	H	VAL	S	20	15.376	56.119	11.611	1.00	0.00
ATOM	1481	N	ASP	S	21	13.229	53.326	13.533	1.00	0.00
ATOM	1482	CA	ASP	S	21	13.250	51.883	13.272	1.00	0.00
ATOM	1483	C	ASP	S	21	11.928	51.144	12.945	1.00	0.00
ATOM	1484	O	ASP	S	21	11.537	50.185	13.612	1.00	0.00
ATOM	1485	CB	ASP	S	21	13.947	51.217	14.476	1.00	0.00
ATOM	1486	CG	ASP	S	21	15.458	51.452	14.556	1.00	0.00
ATOM	1487	OD1	ASP	S	21	15.949	52.570	14.475	1.00	0.00
ATOM	1488	OD2	ASP	S	21	16.186	50.490	14.715	1.00	0.00
ATOM	1489	H	ASP	S	21	12.879	53.640	14.411	1.00	0.00
ATOM	1490	N	PRO	S	22	11.196	51.569	11.872	1.00	0.00
ATOM	1491	CA	PRO	S	22	10.035	50.765	11.451	1.00	0.00
ATOM	1492	C	PRO	S	22	10.443	49.716	10.409	1.00	0.00
ATOM	1493	O	PRO	S	22	11.590	49.262	10.382	1.00	0.00
ATOM	1494	CB	PRO	S	22	9.117	51.872	10.924	1.00	0.00
ATOM	1495	CG	PRO	S	22	10.055	52.876	10.254	1.00	0.00
ATOM	1496	CD	PRO	S	22	11.348	52.772	11.057	1.00	0.00
ATOM	1497	N	LEU	S	23	9.510	49.373	9.510	1.00	0.00
ATOM	1498	CA	LEU	S	23	9.918	48.602	8.336	1.00	0.00
ATOM	1499	C	LEU	S	23	10.555	49.525	7.307	1.00	0.00
ATOM	1500	O	LEU	S	23	9.871	50.222	6.566	1.00	0.00
ATOM	1501	CB	LEU	S	23	8.678	47.889	7.778	1.00	0.00
ATOM	1502	CG	LEU	S	23	8.842	47.119	6.460	1.00	0.00
ATOM	1503	CD1	LEU	S	23	9.863	45.988	6.551	1.00	0.00
ATOM	1504	CD2	LEU	S	23	7.495	46.613	5.945	1.00	0.00
ATOM	1505	H	LEU	S	23	8.597	49.767	9.562	1.00	0.00
ATOM	1506	N	SER	S	24	11.892	49.552	7.297	1.00	0.00
ATOM	1507	CA	SER	S	24	12.517	50.557	6.440	1.00	0.00
ATOM	1508	C	SER	S	24	13.859	50.146	5.868	1.00	0.00
ATOM	1509	O	SER	S	24	14.932	50.552	6.308	1.00	0.00
ATOM	1510	CB	SER	S	24	12.573	51.927	7.139	1.00	0.00
ATOM	1511	OG	SER	S	24	11.232	52.412	7.359	1.00	0.00
ATOM	1512	H	SER	S	24	12.459	48.930	7.837	1.00	0.00
ATOM	1513	HG	SER	S	24	10.657	51.876	6.819	1.00	0.00
ATOM	1514	N	GLY	S	25	13.741	49.330	4.810	1.00	0.00
ATOM	1515	CA	GLY	S	25	14.960	48.996	4.075	1.00	0.00
ATOM	1516	C	GLY	S	25	15.455	50.082	3.134	1.00	0.00
ATOM	1517	O	GLY	S	25	15.577	49.905	1.919	1.00	0.00
ATOM	1518	H	GLY	S	25	12.855	48.939	4.570	1.00	0.00
ATOM	1519	N	THR	S	26	15.724	51.253	3.714	1.00	0.00
ATOM	1520	CA	THR	S	26	16.216	52.288	2.825	1.00	0.00
ATOM	1521	C	THR	S	26	17.737	52.362	2.715	1.00	0.00
ATOM	1522	O	THR	S	26	18.446	53.218	3.253	1.00	0.00
ATOM	1523	CB	THR	S	26	15.473	53.614	3.086	1.00	0.00
ATOM	1524	OG1	THR	S	26	15.546	54.478	1.942	1.00	0.00
ATOM	1525	CG2	THR	S	26	15.844	54.325	4.393	1.00	0.00
ATOM	1526	H	THR	S	26	15.696	51.364	4.707	1.00	0.00
ATOM	1527	HG1	THR	S	26	16.332	55.006	2.043	1.00	0.00
ATOM	1528	N	CYS	S	27	18.196	51.397	1.895	1.00	0.00
ATOM	1529	CA	CYS	S	27	19.611	51.232	1.540	1.00	0.00
ATOM	1530	C	CYS	S	27	20.429	50.758	2.727	1.00	0.00
ATOM	1531	O	CYS	S	27	21.450	51.311	3.131	1.00	0.00
ATOM	1532	CB	CYS	S	27	20.198	52.496	0.885	1.00	0.00
ATOM	1533	SG	CYS	S	27	21.756	52.263	-0.022	1.00	0.00
ATOM	1534	H	CYS	S	27	17.532	50.675	1.709	1.00	0.00
ATOM	1535	N	MET	S	28	19.884	49.699	3.339	1.00	0.00
ATOM	1536	CA	MET	S	28	20.582	49.186	4.511	1.00	0.00
ATOM	1537	C	MET	S	28	21.733	48.255	4.149	1.00	0.00
ATOM	1538	O	MET	S	28	21.757	47.739	3.028	1.00	0.00

ATOM	1539	CB	MET	S	28	19.560	48.599	5.485	1.00	0.00
ATOM	1540	CG	MET	S	28	18.646	49.715	5.993	1.00	0.00
ATOM	1541	SD	MET	S	28	17.842	49.313	7.543	1.00	0.00
ATOM	1542	CE	MET	S	28	17.069	47.771	7.031	1.00	0.00
ATOM	1543	H	MET	S	28	19.130	49.210	2.899	1.00	0.00
ATOM	1544	N	ARG	S	29	22.700	48.058	5.084	1.00	0.00
ATOM	1545	CA	ARG	S	29	22.798	48.584	6.459	1.00	0.00
ATOM	1546	C	ARG	S	29	22.903	50.092	6.680	1.00	0.00
ATOM	1547	O	ARG	S	29	22.746	50.584	7.794	1.00	0.00
ATOM	1548	CB	ARG	S	29	23.978	47.936	7.202	1.00	0.00
ATOM	1549	CG	ARG	S	29	23.848	46.440	7.493	1.00	0.00
ATOM	1550	CD	ARG	S	29	25.143	45.742	7.942	1.00	0.00
ATOM	1551	NE	ARG	S	29	25.662	46.198	9.236	1.00	0.00
ATOM	1552	CZ	ARG	S	29	26.510	45.417	9.947	1.00	0.00
ATOM	1553	NH1	ARG	S	29	27.167	45.947	10.984	1.00	0.00
ATOM	1554	NH2	ARG	S	29	26.690	44.142	9.591	1.00	0.00
ATOM	1555	H	ARG	S	29	23.326	47.344	4.786	1.00	0.00
ATOM	1556	HE	ARG	S	29	25.345	47.084	9.571	1.00	0.00
ATOM	1557	1HH1	ARG	S	29	27.745	45.381	11.588	1.00	0.00
ATOM	1558	2HH1	ARG	S	29	27.099	46.927	11.193	1.00	0.00
ATOM	1559	1HH2	ARG	S	29	27.343	43.536	10.045	1.00	0.00
ATOM	1560	2HH2	ARG	S	29	26.159	43.704	8.846	1.00	0.00
ATOM	1561	N	ASN	S	30	23.235	50.843	5.629	1.00	0.00
ATOM	1562	CA	ASN	S	30	23.732	52.150	6.059	1.00	0.00
ATOM	1563	C	ASN	S	30	22.968	53.391	5.636	1.00	0.00
ATOM	1564	O	ASN	S	30	23.517	54.466	5.384	1.00	0.00
ATOM	1565	CB	ASN	S	30	25.232	52.234	5.816	1.00	0.00
ATOM	1566	CG	ASN	S	30	25.865	53.256	6.735	1.00	0.00
ATOM	1567	OD1	ASN	S	30	26.798	53.956	6.349	1.00	0.00
ATOM	1568	ND2	ASN	S	30	25.405	53.292	7.994	1.00	0.00
ATOM	1569	H	ASN	S	30	23.097	50.593	4.670	1.00	0.00
ATOM	1570	1HD2	ASN	S	30	25.912	53.852	8.646	1.00	0.00
ATOM	1571	2HD2	ASN	S	30	24.586	52.807	8.290	1.00	0.00
ATOM	1572	N	THR	S	31	21.641	53.173	5.604	1.00	0.00
ATOM	1573	CA	THR	S	31	20.673	54.185	5.164	1.00	0.00
ATOM	1574	C	THR	S	31	21.062	54.957	3.899	1.00	0.00
ATOM	1575	O	THR	S	31	22.016	54.648	3.192	1.00	0.00
ATOM	1576	CB	THR	S	31	20.210	55.079	6.348	1.00	0.00
ATOM	1577	OG1	THR	S	31	18.969	55.756	6.064	1.00	0.00
ATOM	1578	CG2	THR	S	31	21.262	56.073	6.842	1.00	0.00
ATOM	1579	H	THR	S	31	21.365	52.243	5.833	1.00	0.00
ATOM	1580	HG1	THR	S	31	18.851	56.381	6.783	1.00	0.00
ATOM	1581	N	VAL	S	32	20.269	56.000	3.600	1.00	0.00
ATOM	1582	CA	VAL	S	32	20.537	56.742	2.365	1.00	0.00
ATOM	1583	C	VAL	S	32	21.990	57.206	2.162	1.00	0.00
ATOM	1584	O	VAL	S	32	22.609	56.843	1.174	1.00	0.00
ATOM	1585	CB	VAL	S	32	19.496	57.860	2.142	1.00	0.00
ATOM	1586	CG1	VAL	S	32	19.662	58.538	0.777	1.00	0.00
ATOM	1587	CG2	VAL	S	32	18.073	57.322	2.322	1.00	0.00
ATOM	1588	H	VAL	S	32	19.546	56.232	4.253	1.00	0.00
ATOM	1589	N	PRO	S	33	22.575	58.000	3.103	1.00	0.00
ATOM	1590	CA	PRO	S	33	23.963	58.441	2.871	1.00	0.00
ATOM	1591	C	PRO	S	33	25.071	57.411	3.117	1.00	0.00
ATOM	1592	O	PRO	S	33	26.157	57.774	3.577	1.00	0.00
ATOM	1593	CB	PRO	S	33	24.119	59.639	3.820	1.00	0.00
ATOM	1594	CG	PRO	S	33	22.729	59.958	4.369	1.00	0.00
ATOM	1595	CD	PRO	S	33	22.027	58.612	4.308	1.00	0.00
ATOM	1596	N	CYS	S	34	24.775	56.130	2.817	1.00	0.00
ATOM	1597	CA	CYS	S	34	25.654	55.009	3.159	1.00	0.00
ATOM	1598	C	CYS	S	34	27.141	55.183	2.933	1.00	0.00
ATOM	1599	O	CYS	S	34	27.960	54.674	3.690	1.00	0.00
ATOM	1600	CB	CYS	S	34	25.173	53.729	2.465	1.00	0.00
ATOM	1601	SG	CYS	S	34	25.151	53.851	0.656	1.00	0.00
ATOM	1602	H	CYS	S	34	23.906	55.925	2.369	1.00	0.00
ATOM	1603	N	GLN	S	35	27.471	55.896	1.842	1.00	0.00
ATOM	1604	CA	GLN	S	35	28.906	56.052	1.639	1.00	0.00
ATOM	1605	C	GLN	S	35	29.504	57.413	1.923	1.00	0.00

ATOM	1606	O	GLN	S	35	30.721	57.578	1.880	1.00	0.00
ATOM	1607	CB	GLN	S	35	29.330	55.483	0.292	1.00	0.00
ATOM	1608	CG	GLN	S	35	29.199	53.960	0.334	1.00	0.00
ATOM	1609	CD	GLN	S	35	29.621	53.391	-0.993	1.00	0.00
ATOM	1610	OE1	GLN	S	35	30.793	53.284	-1.328	1.00	0.00
ATOM	1611	NE2	GLN	S	35	28.594	53.051	-1.788	1.00	0.00
ATOM	1612	H	GLN	S	35	26.792	56.214	1.180	1.00	0.00
ATOM	1613	1HE2	GLN	S	35	28.832	52.764	-2.719	1.00	0.00
ATOM	1614	2HE2	GLN	S	35	27.650	53.085	-1.457	1.00	0.00
ATOM	1615	N	LYS	S	36	28.630	58.370	2.294	1.00	0.00
ATOM	1616	CA	LYS	S	36	29.197	59.577	2.911	1.00	0.00
ATOM	1617	C	LYS	S	36	29.636	59.280	4.339	1.00	0.00
ATOM	1618	O	LYS	S	36	30.815	59.217	4.684	1.00	0.00
ATOM	1619	CB	LYS	S	36	28.181	60.732	2.835	1.00	0.00
ATOM	1620	CG	LYS	S	36	28.693	62.175	3.016	1.00	0.00
ATOM	1621	CD	LYS	S	36	29.135	62.596	4.426	1.00	0.00
ATOM	1622	CE	LYS	S	36	29.413	64.103	4.515	1.00	0.00
ATOM	1623	NZ	LYS	S	36	29.846	64.465	5.865	1.00	0.00
ATOM	1624	H	LYS	S	36	27.668	58.125	2.386	1.00	0.00
ATOM	1625	1HZ	LYS	S	36	30.882	64.508	5.946	1.00	0.00
ATOM	1626	2HZ	LYS	S	36	29.533	65.416	6.124	1.00	0.00
ATOM	1627	3HZ	LYS	S	36	29.477	63.849	6.609	1.00	0.00
ATOM	1628	N	ARG	S	37	28.614	59.019	5.171	1.00	0.00
ATOM	1629	CA	ARG	S	37	28.987	58.463	6.466	1.00	0.00
ATOM	1630	C	ARG	S	37	29.449	57.022	6.331	1.00	0.00
ATOM	1631	O	ARG	S	37	29.676	56.523	5.222	1.00	0.00
ATOM	1632	CB	ARG	S	37	27.845	58.667	7.465	1.00	0.00
ATOM	1633	CG	ARG	S	37	27.889	60.106	7.982	1.00	0.00
ATOM	1634	CD	ARG	S	37	26.840	60.455	9.037	1.00	0.00
ATOM	1635	NE	ARG	S	37	27.209	61.713	9.688	1.00	0.00
ATOM	1636	CZ	ARG	S	37	26.330	62.540	10.284	1.00	0.00
ATOM	1637	NH1	ARG	S	37	26.772	63.573	10.991	1.00	0.00
ATOM	1638	NH2	ARG	S	37	25.023	62.307	10.167	1.00	0.00
ATOM	1639	H	ARG	S	37	27.670	58.966	4.852	1.00	0.00
ATOM	1640	HE	ARG	S	37	28.177	62.000	9.621	1.00	0.00
ATOM	1641	1HH1	ARG	S	37	26.184	64.260	11.433	1.00	0.00
ATOM	1642	2HH1	ARG	S	37	27.763	63.741	11.118	1.00	0.00
ATOM	1643	1HH2	ARG	S	37	24.326	62.867	10.618	1.00	0.00
ATOM	1644	2HH2	ARG	S	37	24.697	61.543	9.607	1.00	0.00
ATOM	1645	N	ILE	S	38	29.637	56.397	7.490	1.00	0.00
ATOM	1646	CA	ILE	S	38	29.911	54.968	7.452	1.00	0.00
ATOM	1647	C	ILE	S	38	28.986	54.258	8.437	1.00	0.00
ATOM	1648	O	ILE	S	38	27.856	54.732	8.598	1.00	0.00
ATOM	1649	CB	ILE	S	38	31.433	54.727	7.537	1.00	0.00
ATOM	1650	CG1	ILE	S	38	31.883	53.317	7.126	1.00	0.00
ATOM	1651	CG2	ILE	S	38	31.976	55.173	8.892	1.00	0.00
ATOM	1652	CD1	ILE	S	38	33.398	53.143	7.020	1.00	0.00
ATOM	1653	H	ILE	S	38	29.561	56.889	8.361	1.00	0.00
ATOM	1654	N	ILE	S	39	29.394	53.122	9.023	1.00	0.00
ATOM	1655	CA	ILE	S	39	28.357	52.161	9.336	1.00	0.00
ATOM	1656	C	ILE	S	39	28.315	51.748	10.797	1.00	0.00
ATOM	1657	O	ILE	S	39	29.332	51.467	11.425	1.00	0.00
ATOM	1658	CB	ILE	S	39	28.548	50.976	8.362	1.00	0.00
ATOM	1659	CG1	ILE	S	39	27.384	49.989	8.309	1.00	0.00
ATOM	1660	CG2	ILE	S	39	29.875	50.240	8.616	1.00	0.00
ATOM	1661	CD1	ILE	S	39	27.585	48.926	7.228	1.00	0.00
ATOM	1662	H	ILE	S	39	30.356	52.873	9.123	1.00	0.00
ATOM	1663	N	SER	S	40	27.089	51.627	11.287	1.00	0.00
ATOM	1664	CA	SER	S	40	27.013	50.865	12.528	1.00	0.00
ATOM	1665	C	SER	S	40	26.984	49.358	12.331	1.00	0.00
ATOM	1666	O	SER	S	40	26.974	48.784	11.228	1.00	0.00
ATOM	1667	CB	SER	S	40	25.811	51.285	13.385	1.00	0.00
ATOM	1668	OG	SER	S	40	26.236	51.777	14.666	1.00	0.00
ATOM	1669	H	SER	S	40	26.287	51.895	10.758	1.00	0.00
ATOM	1670	HG	SER	S	40	25.552	51.470	15.275	1.00	0.00
ATOM	1671	N	GLU	S	41	26.933	48.774	13.534	1.00	0.00
ATOM	1672	CA	GLU	S	41	26.094	47.631	13.889	1.00	0.00

ATOM	1673	C	GLU	S	41	24.949	47.339	12.927	1.00	0.00
ATOM	1674	O	GLU	S	41	24.458	48.187	12.174	1.00	0.00
ATOM	1675	CB	GLU	S	41	25.549	47.936	15.284	1.00	0.00
ATOM	1676	CG	GLU	S	41	24.802	46.800	15.974	1.00	0.00
ATOM	1677	CD	GLU	S	41	23.896	47.351	17.048	1.00	0.00
ATOM	1678	OE1	GLU	S	41	23.945	46.875	18.179	1.00	0.00
ATOM	1679	OE2	GLU	S	41	23.109	48.244	16.758	1.00	0.00
ATOM	1680	H	GLU	S	41	27.299	49.317	14.287	1.00	0.00
ATOM	1681	N	ASN	S	42	24.563	46.064	12.947	1.00	0.00
ATOM	1682	CA	ASN	S	42	23.217	45.700	12.522	1.00	0.00
ATOM	1683	C	ASN	S	42	22.472	45.227	13.759	1.00	0.00
ATOM	1684	O	ASN	S	42	23.031	44.495	14.586	1.00	0.00
ATOM	1685	CB	ASN	S	42	23.246	44.667	11.394	1.00	0.00
ATOM	1686	CG	ASN	S	42	23.941	43.408	11.852	1.00	0.00
ATOM	1687	OD1	ASN	S	42	25.160	43.356	12.047	1.00	0.00
ATOM	1688	ND2	ASN	S	42	23.079	42.419	12.077	1.00	0.00
ATOM	1689	H	ASN	S	42	25.069	45.453	13.556	1.00	0.00
ATOM	1690	1HD2	ASN	S	42	23.320	41.527	12.451	1.00	0.00
ATOM	1691	2HD2	ASN	S	42	22.108	42.552	11.856	1.00	0.00
ATOM	1692	N	LYS	S	43	21.256	45.763	13.906	1.00	0.00
ATOM	1693	CA	LYS	S	43	20.559	45.444	15.144	1.00	0.00
ATOM	1694	C	LYS	S	43	19.971	44.058	15.057	1.00	0.00
ATOM	1695	O	LYS	S	43	18.973	43.855	14.370	1.00	0.00
ATOM	1696	CB	LYS	S	43	19.477	46.491	15.446	1.00	0.00
ATOM	1697	CG	LYS	S	43	18.605	46.212	16.685	1.00	0.00
ATOM	1698	CD	LYS	S	43	19.043	46.786	18.043	1.00	0.00
ATOM	1699	CE	LYS	S	43	20.434	46.403	18.553	1.00	0.00
ATOM	1700	NZ	LYS	S	43	21.321	47.560	18.401	1.00	0.00
ATOM	1701	H	LYS	S	43	20.874	46.348	13.196	1.00	0.00
ATOM	1702	1HZ	LYS	S	43	22.315	47.325	18.601	1.00	0.00
ATOM	1703	2HZ	LYS	S	43	21.391	47.873	17.411	1.00	0.00
ATOM	1704	3HZ	LYS	S	43	21.044	48.367	18.986	1.00	0.00
ATOM	1705	N	THR	S	44	20.650	43.162	15.783	1.00	0.00
ATOM	1706	CA	THR	S	44	20.305	41.743	15.796	1.00	0.00
ATOM	1707	C	THR	S	44	20.515	41.011	14.474	1.00	0.00
ATOM	1708	O	THR	S	44	21.546	40.360	14.302	1.00	0.00
ATOM	1709	CB	THR	S	44	18.922	41.496	16.424	1.00	0.00
ATOM	1710	OG1	THR	S	44	18.836	42.143	17.710	1.00	0.00
ATOM	1711	CG2	THR	S	44	18.614	40.003	16.595	1.00	0.00
ATOM	1712	H	THR	S	44	21.474	43.463	16.248	1.00	0.00
ATOM	1713	HG1	THR	S	44	18.041	41.760	18.074	1.00	0.00
ATOM	1714	N	ASP	S	45	19.529	41.116	13.580	1.00	0.00
ATOM	1715	CA	ASP	S	45	19.642	40.316	12.370	1.00	0.00
ATOM	1716	C	ASP	S	45	20.065	41.122	11.160	1.00	0.00
ATOM	1717	O	ASP	S	45	20.077	42.353	11.145	1.00	0.00
ATOM	1718	CB	ASP	S	45	18.336	39.564	12.119	1.00	0.00
ATOM	1719	CG	ASP	S	45	18.662	38.134	11.743	1.00	0.00
ATOM	1720	OD1	ASP	S	45	18.512	37.258	12.592	1.00	0.00
ATOM	1721	OD2	ASP	S	45	19.070	37.896	10.607	1.00	0.00
ATOM	1722	H	ASP	S	45	18.791	41.772	13.716	1.00	0.00
ATOM	1723	N	GLU	S	46	20.427	40.393	10.105	1.00	0.00
ATOM	1724	CA	GLU	S	46	20.792	41.115	8.895	1.00	0.00
ATOM	1725	C	GLU	S	46	19.678	41.501	7.931	1.00	0.00
ATOM	1726	O	GLU	S	46	19.961	42.235	6.982	1.00	0.00
ATOM	1727	CB	GLU	S	46	21.978	40.463	8.169	1.00	0.00
ATOM	1728	CG	GLU	S	46	23.363	40.819	8.752	1.00	0.00
ATOM	1729	CD	GLU	S	46	23.847	42.221	8.369	1.00	0.00
ATOM	1730	OE1	GLU	S	46	25.053	42.405	8.196	1.00	0.00
ATOM	1731	OE2	GLU	S	46	23.040	43.138	8.243	1.00	0.00
ATOM	1732	H	GLU	S	46	20.308	39.398	10.174	1.00	0.00
ATOM	1733	N	GLU	S	47	18.434	41.068	8.227	1.00	0.00
ATOM	1734	CA	GLU	S	47	17.271	41.414	7.377	1.00	0.00
ATOM	1735	C	GLU	S	47	17.255	42.826	6.789	1.00	0.00
ATOM	1736	O	GLU	S	47	17.176	43.839	7.485	1.00	0.00
ATOM	1737	CB	GLU	S	47	15.935	41.145	8.092	1.00	0.00
ATOM	1738	CG	GLU	S	47	14.839	40.409	7.285	1.00	0.00
ATOM	1739	CD	GLU	S	47	14.237	41.213	6.133	1.00	0.00

ATOM	1740	OE1	GLU	S	47	13.183	41.822	6.300	1.00	0.00
ATOM	1741	OE2	GLU	S	47	14.796	41.211	5.041	1.00	0.00
ATOM	1742	H	GLU	S	47	18.333	40.428	8.991	1.00	0.00
ATOM	1743	N	PRO	S	48	17.419	42.856	5.448	1.00	0.00
ATOM	1744	CA	PRO	S	48	17.311	44.117	4.716	1.00	0.00
ATOM	1745	C	PRO	S	48	16.037	44.938	4.883	1.00	0.00
ATOM	1746	O	PRO	S	48	16.051	46.122	4.557	1.00	0.00
ATOM	1747	CB	PRO	S	48	17.546	43.694	3.261	1.00	0.00
ATOM	1748	CG	PRO	S	48	18.367	42.410	3.346	1.00	0.00
ATOM	1749	CD	PRO	S	48	17.790	41.738	4.584	1.00	0.00
ATOM	1750	N	GLY	S	49	14.946	44.306	5.329	1.00	0.00
ATOM	1751	CA	GLY	S	49	13.714	45.086	5.392	1.00	0.00
ATOM	1752	C	GLY	S	49	13.400	45.675	6.755	1.00	0.00
ATOM	1753	O	GLY	S	49	13.066	46.856	6.905	1.00	0.00
ATOM	1754	H	GLY	S	49	14.936	43.340	5.612	1.00	0.00
ATOM	1755	N	TYR	S	50	13.477	44.791	7.749	1.00	0.00
ATOM	1756	CA	TYR	S	50	13.077	45.223	9.084	1.00	0.00
ATOM	1757	C	TYR	S	50	14.172	45.896	9.893	1.00	0.00
ATOM	1758	O	TYR	S	50	15.332	45.502	9.876	1.00	0.00
ATOM	1759	CB	TYR	S	50	12.463	44.060	9.871	1.00	0.00
ATOM	1760	CG	TYR	S	50	10.961	44.013	9.679	1.00	0.00
ATOM	1761	CD1	TYR	S	50	10.397	43.041	8.826	1.00	0.00
ATOM	1762	CD2	TYR	S	50	10.159	44.941	10.376	1.00	0.00
ATOM	1763	CE1	TYR	S	50	8.998	42.993	8.673	1.00	0.00
ATOM	1764	CE2	TYR	S	50	8.764	44.892	10.223	1.00	0.00
ATOM	1765	CZ	TYR	S	50	8.197	43.918	9.375	1.00	0.00
ATOM	1766	OH	TYR	S	50	6.818	43.877	9.233	1.00	0.00
ATOM	1767	H	TYR	S	50	13.801	43.859	7.551	1.00	0.00
ATOM	1768	HH	TYR	S	50	6.436	44.530	9.805	1.00	0.00
ATOM	1769	N	ILE	S	51	13.709	46.933	10.625	1.00	0.00
ATOM	1770	CA	ILE	S	51	14.506	47.751	11.552	1.00	0.00
ATOM	1771	C	ILE	S	51	15.608	48.620	10.934	1.00	0.00
ATOM	1772	O	ILE	S	51	16.126	48.344	9.859	1.00	0.00
ATOM	1773	CB	ILE	S	51	14.956	46.888	12.759	1.00	0.00
ATOM	1774	CG1	ILE	S	51	14.635	47.581	14.082	1.00	0.00
ATOM	1775	CG2	ILE	S	51	16.433	46.459	12.715	1.00	0.00
ATOM	1776	CD1	ILE	S	51	14.877	46.697	15.307	1.00	0.00
ATOM	1777	H	ILE	S	51	12.731	47.105	10.545	1.00	0.00
ATOM	1778	N	LYS	S	52	15.973	49.705	11.641	1.00	0.00
ATOM	1779	CA	LYS	S	52	17.127	50.472	11.165	1.00	0.00
ATOM	1780	C	LYS	S	52	18.440	49.892	11.666	1.00	0.00
ATOM	1781	O	LYS	S	52	19.155	50.432	12.509	1.00	0.00
ATOM	1782	CB	LYS	S	52	16.918	51.967	11.475	1.00	0.00
ATOM	1783	CG	LYS	S	52	18.055	53.010	11.453	1.00	0.00
ATOM	1784	CD	LYS	S	52	18.818	53.181	10.141	1.00	0.00
ATOM	1785	CE	LYS	S	52	19.621	54.491	10.076	1.00	0.00
ATOM	1786	NZ	LYS	S	52	20.680	54.588	11.081	1.00	0.00
ATOM	1787	H	LYS	S	52	15.607	49.877	12.558	1.00	0.00
ATOM	1788	1HZ	LYS	S	52	20.931	53.673	11.482	1.00	0.00
ATOM	1789	2HZ	LYS	S	52	21.540	55.021	10.684	1.00	0.00
ATOM	1790	3HZ	LYS	S	52	20.370	55.187	11.867	1.00	0.00
ATOM	1791	N	LYS	S	53	18.759	48.769	11.010	1.00	0.00
ATOM	1792	CA	LYS	S	53	19.927	47.971	11.369	1.00	0.00
ATOM	1793	C	LYS	S	53	21.163	48.704	11.840	1.00	0.00
ATOM	1794	O	LYS	S	53	21.759	48.349	12.853	1.00	0.00
ATOM	1795	CB	LYS	S	53	20.290	47.005	10.258	1.00	0.00
ATOM	1796	CG	LYS	S	53	19.231	45.924	10.065	1.00	0.00
ATOM	1797	CD	LYS	S	53	19.772	44.862	9.124	1.00	0.00
ATOM	1798	CE	LYS	S	53	20.114	45.441	7.759	1.00	0.00
ATOM	1799	NZ	LYS	S	53	21.097	44.576	7.112	1.00	0.00
ATOM	1800	H	LYS	S	53	18.033	48.393	10.431	1.00	0.00
ATOM	1801	1HZ	LYS	S	53	20.653	43.719	6.739	1.00	0.00
ATOM	1802	2HZ	LYS	S	53	21.561	45.094	6.352	1.00	0.00
ATOM	1803	3HZ	LYS	S	53	21.812	44.280	7.809	1.00	0.00
ATOM	1804	N	CYS	S	54	21.536	49.774	11.126	1.00	0.00
ATOM	1805	CA	CYS	S	54	22.473	50.662	11.802	1.00	0.00
ATOM	1806	C	CYS	S	54	21.818	51.477	12.891	1.00	0.00

ATOM	1807	O	CYS	S	54	21.392	52.600	12.635	1.00	0.00
ATOM	1808	CB	CYS	S	54	23.169	51.595	10.819	1.00	0.00
ATOM	1809	SG	CYS	S	54	24.471	50.734	9.906	1.00	0.00
ATOM	1810	H	CYS	S	54	21.003	49.989	10.308	1.00	0.00
ATOM	1811	N	CYS	S	55	21.765	50.885	14.085	1.00	0.00
ATOM	1812	CA	CYS	S	55	21.492	51.763	15.218	1.00	0.00
ATOM	1813	C	CYS	S	55	22.721	52.610	15.429	1.00	0.00
ATOM	1814	O	CYS	S	55	23.745	52.150	15.937	1.00	0.00
ATOM	1815	CB	CYS	S	55	21.231	50.953	16.478	1.00	0.00
ATOM	1816	SG	CYS	S	55	19.860	49.782	16.322	1.00	0.00
ATOM	1817	H	CYS	S	55	22.076	49.948	14.256	1.00	0.00
ATOM	1818	N	LYS	S	56	22.656	53.837	14.913	1.00	0.00
ATOM	1819	CA	LYS	S	56	23.995	54.399	14.851	1.00	0.00
ATOM	1820	C	LYS	S	56	24.307	55.314	15.993	1.00	0.00
ATOM	1821	O	LYS	S	56	23.440	55.932	16.613	1.00	0.00
ATOM	1822	CB	LYS	S	56	24.310	55.007	13.487	1.00	0.00
ATOM	1823	CG	LYS	S	56	25.727	54.785	12.940	1.00	0.00
ATOM	1824	CD	LYS	S	56	25.996	55.352	11.538	1.00	0.00
ATOM	1825	CE	LYS	S	56	25.980	56.883	11.457	1.00	0.00
ATOM	1826	NZ	LYS	S	56	27.073	57.393	12.270	1.00	0.00
ATOM	1827	H	LYS	S	56	21.817	54.307	14.651	1.00	0.00
ATOM	1828	1HZ	LYS	S	56	26.967	57.080	13.245	1.00	0.00
ATOM	1829	2HZ	LYS	S	56	27.983	57.081	11.884	1.00	0.00
ATOM	1830	3HZ	LYS	S	56	27.157	58.420	12.192	1.00	0.00
ATOM	1831	N	GLY	S	57	25.614	55.306	16.278	1.00	0.00
ATOM	1832	CA	GLY	S	57	26.202	56.429	16.983	1.00	0.00
ATOM	1833	C	GLY	S	57	27.113	57.120	15.998	1.00	0.00
ATOM	1834	O	GLY	S	57	27.257	56.728	14.830	1.00	0.00
ATOM	1835	H	GLY	S	57	26.209	54.699	15.751	1.00	0.00
ATOM	1836	N	PHE	S	58	27.742	58.180	16.473	1.00	0.00
ATOM	1837	CA	PHE	S	58	28.591	58.838	15.490	1.00	0.00
ATOM	1838	C	PHE	S	58	30.081	58.528	15.560	1.00	0.00
ATOM	1839	O	PHE	S	58	30.868	58.834	14.663	1.00	0.00
ATOM	1840	CB	PHE	S	58	28.223	60.320	15.411	1.00	0.00
ATOM	1841	CG	PHE	S	58	26.841	60.454	14.806	1.00	0.00
ATOM	1842	CD1	PHE	S	58	25.703	60.480	15.642	1.00	0.00
ATOM	1843	CD2	PHE	S	58	26.705	60.524	13.404	1.00	0.00
ATOM	1844	CE1	PHE	S	58	24.416	60.545	15.076	1.00	0.00
ATOM	1845	CE2	PHE	S	58	25.420	60.586	12.833	1.00	0.00
ATOM	1846	CZ	PHE	S	58	24.287	60.589	13.673	1.00	0.00
ATOM	1847	H	PHE	S	58	27.581	58.485	17.409	1.00	0.00
ATOM	1848	N	CYS	S	59	30.478	57.826	16.642	1.00	0.00
ATOM	1849	CA	CYS	S	59	31.859	57.324	16.732	1.00	0.00
ATOM	1850	C	CYS	S	59	32.192	56.338	15.628	1.00	0.00
ATOM	1851	O	CYS	S	59	33.182	56.455	14.900	1.00	0.00
ATOM	1852	CB	CYS	S	59	32.153	56.701	18.096	1.00	0.00
ATOM	1853	SG	CYS	S	59	33.930	56.457	18.379	1.00	0.00
ATOM	1854	H	CYS	S	59	29.761	57.539	17.274	1.00	0.00
ATOM	1855	N	ILE	S	60	31.196	55.465	15.429	1.00	0.00
ATOM	1856	CA	ILE	S	60	31.219	54.668	14.201	1.00	0.00
ATOM	1857	C	ILE	S	60	31.218	55.417	12.869	1.00	0.00
ATOM	1858	O	ILE	S	60	30.907	54.805	11.848	1.00	0.00
ATOM	1859	CB	ILE	S	60	30.094	53.613	14.127	1.00	0.00
ATOM	1860	CG1	ILE	S	60	28.818	53.875	14.936	1.00	0.00
ATOM	1861	CG2	ILE	S	60	30.644	52.208	14.372	1.00	0.00
ATOM	1862	CD1	ILE	S	60	28.838	53.453	16.409	1.00	0.00
ATOM	1863	H	ILE	S	60	30.376	55.530	15.995	1.00	0.00
ATOM	1864	N	ASP	S	61	31.544	56.732	12.867	1.00	0.00
ATOM	1865	CA	ASP	S	61	31.852	57.492	11.650	1.00	0.00
ATOM	1866	C	ASP	S	61	33.298	57.956	11.497	1.00	0.00
ATOM	1867	O	ASP	S	61	33.756	58.269	10.394	1.00	0.00
ATOM	1868	CB	ASP	S	61	30.960	58.722	11.484	1.00	0.00
ATOM	1869	CG	ASP	S	61	29.530	58.403	11.109	1.00	0.00
ATOM	1870	OD1	ASP	S	61	28.655	59.198	11.420	1.00	0.00
ATOM	1871	OD2	ASP	S	61	29.253	57.372	10.509	1.00	0.00
ATOM	1872	H	ASP	S	61	31.691	57.209	13.731	1.00	0.00
ATOM	1873	N	ILE	S	62	34.058	57.953	12.606	1.00	0.00

ATOM	1874	CA	ILE	S	62	35.496	58.271	12.580	1.00	0.00
ATOM	1875	C	ILE	S	62	36.340	57.299	11.744	1.00	0.00
ATOM	1876	O	ILE	S	62	37.488	57.512	11.358	1.00	0.00
ATOM	1877	CB	ILE	S	62	36.024	58.411	14.015	1.00	0.00
ATOM	1878	CG1	ILE	S	62	35.070	59.286	14.830	1.00	0.00
ATOM	1879	CG2	ILE	S	62	37.427	59.030	14.039	1.00	0.00
ATOM	1880	CD1	ILE	S	62	35.288	59.125	16.328	1.00	0.00
ATOM	1881	H	ILE	S	62	33.567	57.803	13.459	1.00	0.00
ATOM	1882	N	LEU	S	63	35.637	56.233	11.359	1.00	0.00
ATOM	1883	CA	LEU	S	63	36.072	55.418	10.227	1.00	0.00
ATOM	1884	C	LEU	S	63	36.195	56.140	8.868	1.00	0.00
ATOM	1885	O	LEU	S	63	36.594	55.566	7.865	1.00	0.00
ATOM	1886	CB	LEU	S	63	35.164	54.192	10.150	1.00	0.00
ATOM	1887	CG	LEU	S	63	34.839	53.535	11.499	1.00	0.00
ATOM	1888	CD1	LEU	S	63	33.760	52.462	11.356	1.00	0.00
ATOM	1889	CD2	LEU	S	63	36.083	53.021	12.225	1.00	0.00
ATOM	1890	H	LEU	S	63	34.750	56.114	11.806	1.00	0.00
ATOM	1891	N	LYS	S	64	35.891	57.451	8.864	1.00	0.00
ATOM	1892	CA	LYS	S	64	36.354	58.311	7.780	1.00	0.00
ATOM	1893	C	LYS	S	64	37.874	58.346	7.711	1.00	0.00
ATOM	1894	O	LYS	S	64	38.466	57.840	6.775	1.00	0.00
ATOM	1895	CB	LYS	S	64	35.700	59.686	7.946	1.00	0.00
ATOM	1896	CG	LYS	S	64	35.934	60.695	6.822	1.00	0.00
ATOM	1897	CD	LYS	S	64	36.915	61.798	7.218	1.00	0.00
ATOM	1898	CE	LYS	S	64	37.026	62.857	6.126	1.00	0.00
ATOM	1899	NZ	LYS	S	64	37.892	63.948	6.577	1.00	0.00
ATOM	1900	H	LYS	S	64	35.455	57.815	9.679	1.00	0.00
ATOM	1901	1HZ	LYS	S	64	37.857	64.705	5.877	1.00	0.00
ATOM	1902	2HZ	LYS	S	64	37.597	64.392	7.464	1.00	0.00
ATOM	1903	3HZ	LYS	S	64	38.895	63.681	6.624	1.00	0.00
ATOM	1904	N	LYS	S	65	38.494	58.887	8.773	1.00	0.00
ATOM	1905	CA	LYS	S	65	39.953	58.831	8.736	1.00	0.00
ATOM	1906	C	LYS	S	65	40.567	57.450	8.957	1.00	0.00
ATOM	1907	O	LYS	S	65	41.660	57.159	8.482	1.00	0.00
ATOM	1908	CB	LYS	S	65	40.523	59.909	9.669	1.00	0.00
ATOM	1909	CG	LYS	S	65	42.023	60.205	9.515	1.00	0.00
ATOM	1910	CD	LYS	S	65	42.470	60.546	8.085	1.00	0.00
ATOM	1911	CE	LYS	S	65	41.774	61.751	7.440	1.00	0.00
ATOM	1912	NZ	LYS	S	65	42.195	63.033	8.022	1.00	0.00
ATOM	1913	H	LYS	S	65	37.974	59.217	9.563	1.00	0.00
ATOM	1914	1HZ	LYS	S	65	43.176	63.269	7.774	1.00	0.00
ATOM	1915	2HZ	LYS	S	65	41.595	63.799	7.662	1.00	0.00
ATOM	1916	3HZ	LYS	S	65	42.124	63.051	9.062	1.00	0.00
ATOM	1917	N	ILE	S	66	39.827	56.621	9.707	1.00	0.00
ATOM	1918	CA	ILE	S	66	40.422	55.343	10.089	1.00	0.00
ATOM	1919	C	ILE	S	66	39.666	54.090	9.624	1.00	0.00
ATOM	1920	O	ILE	S	66	39.784	52.983	10.162	1.00	0.00
ATOM	1921	CB	ILE	S	66	40.758	55.411	11.591	1.00	0.00
ATOM	1922	CG1	ILE	S	66	42.091	54.760	12.003	1.00	0.00
ATOM	1923	CG2	ILE	S	66	39.564	54.996	12.463	1.00	0.00
ATOM	1924	CD1	ILE	S	66	42.258	53.243	11.869	1.00	0.00
ATOM	1925	H	ILE	S	66	38.911	56.863	10.016	1.00	0.00
ATOM	1926	N	SER	S	67	38.905	54.324	8.548	1.00	0.00
ATOM	1927	CA	SER	S	67	38.711	53.250	7.584	1.00	0.00
ATOM	1928	C	SER	S	67	39.010	53.712	6.170	1.00	0.00
ATOM	1929	O	SER	S	67	40.071	53.409	5.626	1.00	0.00
ATOM	1930	CB	SER	S	67	37.329	52.574	7.620	1.00	0.00
ATOM	1931	OG	SER	S	67	37.056	51.933	8.875	1.00	0.00
ATOM	1932	H	SER	S	67	38.662	55.255	8.294	1.00	0.00
ATOM	1933	HG	SER	S	67	37.868	51.462	9.099	1.00	0.00
ATOM	1934	N	LYS	S	68	38.020	54.414	5.583	1.00	0.00
ATOM	1935	CA	LYS	S	68	37.880	54.491	4.123	1.00	0.00
ATOM	1936	C	LYS	S	68	39.156	54.544	3.294	1.00	0.00
ATOM	1937	O	LYS	S	68	39.326	53.859	2.284	1.00	0.00
ATOM	1938	CB	LYS	S	68	36.928	55.633	3.746	1.00	0.00
ATOM	1939	CG	LYS	S	68	35.531	55.428	4.342	1.00	0.00
ATOM	1940	CD	LYS	S	68	34.492	56.473	3.925	1.00	0.00

ATOM	1941	CE	LYS	S	68	33.127	56.122	4.518	1.00	0.00
ATOM	1942	NZ	LYS	S	68	32.076	57.027	4.043	1.00	0.00
ATOM	1943	H	LYS	S	68	37.341	54.831	6.185	1.00	0.00
ATOM	1944	1HZ	LYS	S	68	31.156	56.671	4.351	1.00	0.00
ATOM	1945	2HZ	LYS	S	68	32.151	57.989	4.424	1.00	0.00
ATOM	1946	3HZ	LYS	S	68	32.042	57.100	3.008	1.00	0.00
ATOM	1947	N	SER	S	69	40.065	55.396	3.774	1.00	0.00
ATOM	1948	CA	SER	S	69	41.322	55.450	3.041	1.00	0.00
ATOM	1949	C	SER	S	69	42.542	54.738	3.613	1.00	0.00
ATOM	1950	O	SER	S	69	43.448	54.379	2.872	1.00	0.00
ATOM	1951	CB	SER	S	69	41.630	56.899	2.686	1.00	0.00
ATOM	1952	OG	SER	S	69	40.435	57.512	2.164	1.00	0.00
ATOM	1953	H	SER	S	69	39.822	55.929	4.586	1.00	0.00
ATOM	1954	HG	SER	S	69	40.399	57.215	1.254	1.00	0.00
ATOM	1955	N	VAL	S	70	42.601	54.547	4.947	1.00	0.00
ATOM	1956	CA	VAL	S	70	43.942	54.229	5.462	1.00	0.00
ATOM	1957	C	VAL	S	70	44.476	52.827	5.149	1.00	0.00
ATOM	1958	O	VAL	S	70	45.528	52.656	4.543	1.00	0.00
ATOM	1959	CB	VAL	S	70	44.102	54.658	6.938	1.00	0.00
ATOM	1960	CG1	VAL	S	70	43.087	54.010	7.874	1.00	0.00
ATOM	1961	CG2	VAL	S	70	45.544	54.497	7.429	1.00	0.00
ATOM	1962	H	VAL	S	70	41.770	54.592	5.510	1.00	0.00
ATOM	1963	N	LYS	S	71	43.690	51.808	5.499	1.00	0.00
ATOM	1964	CA	LYS	S	71	44.046	50.563	4.828	1.00	0.00
ATOM	1965	C	LYS	S	71	43.308	50.461	3.503	1.00	0.00
ATOM	1966	O	LYS	S	71	42.248	49.869	3.376	1.00	0.00
ATOM	1967	CB	LYS	S	71	43.858	49.373	5.782	1.00	0.00
ATOM	1968	CG	LYS	S	71	44.307	48.007	5.254	1.00	0.00
ATOM	1969	CD	LYS	S	71	44.359	46.943	6.357	1.00	0.00
ATOM	1970	CE	LYS	S	71	44.691	45.543	5.829	1.00	0.00
ATOM	1971	NZ	LYS	S	71	45.171	44.696	6.930	1.00	0.00
ATOM	1972	H	LYS	S	71	42.841	51.884	6.031	1.00	0.00
ATOM	1973	1HZ	LYS	S	71	46.106	45.031	7.255	1.00	0.00
ATOM	1974	2HZ	LYS	S	71	44.493	44.713	7.719	1.00	0.00
ATOM	1975	3HZ	LYS	S	71	45.306	43.707	6.649	1.00	0.00
ATOM	1976	N	PHE	S	72	43.917	51.105	2.476	1.00	0.00
ATOM	1977	CA	PHE	S	72	43.299	51.131	1.136	1.00	0.00
ATOM	1978	C	PHE	S	72	42.816	49.751	0.719	1.00	0.00
ATOM	1979	O	PHE	S	72	41.671	49.518	0.359	1.00	0.00
ATOM	1980	CB	PHE	S	72	44.283	51.643	0.075	1.00	0.00
ATOM	1981	CG	PHE	S	72	44.685	53.081	0.308	1.00	0.00
ATOM	1982	CD1	PHE	S	72	45.857	53.367	1.044	1.00	0.00
ATOM	1983	CD2	PHE	S	72	43.889	54.117	-0.229	1.00	0.00
ATOM	1984	CE1	PHE	S	72	46.240	54.707	1.245	1.00	0.00
ATOM	1985	CE2	PHE	S	72	44.272	55.458	-0.031	1.00	0.00
ATOM	1986	CZ	PHE	S	72	45.444	55.739	0.703	1.00	0.00
ATOM	1987	H	PHE	S	72	44.694	51.687	2.725	1.00	0.00
ATOM	1988	N	THR	S	73	43.789	48.848	0.925	1.00	0.00
ATOM	1989	CA	THR	S	73	43.629	47.402	0.812	1.00	0.00
ATOM	1990	C	THR	S	73	42.765	46.724	1.878	1.00	0.00
ATOM	1991	O	THR	S	73	43.200	45.773	2.523	1.00	0.00
ATOM	1992	CB	THR	S	73	45.042	46.785	0.727	1.00	0.00
ATOM	1993	OG1	THR	S	73	44.989	45.366	0.568	1.00	0.00
ATOM	1994	CG2	THR	S	73	45.959	47.162	1.899	1.00	0.00
ATOM	1995	H	THR	S	73	44.648	49.225	1.263	1.00	0.00
ATOM	1996	HG1	THR	S	73	44.616	45.037	1.393	1.00	0.00
ATOM	1997	N	TYR	S	74	41.520	47.220	1.946	1.00	0.00
ATOM	1998	CA	TYR	S	74	40.488	46.787	2.891	1.00	0.00
ATOM	1999	C	TYR	S	74	40.651	47.285	4.324	1.00	0.00
ATOM	2000	O	TYR	S	74	41.164	46.614	5.212	1.00	0.00
ATOM	2001	CB	TYR	S	74	40.196	45.270	2.842	1.00	0.00
ATOM	2002	CG	TYR	S	74	40.053	44.735	1.425	1.00	0.00
ATOM	2003	CD1	TYR	S	74	40.888	43.670	1.023	1.00	0.00
ATOM	2004	CD2	TYR	S	74	39.097	45.288	0.547	1.00	0.00
ATOM	2005	CE1	TYR	S	74	40.761	43.142	-0.275	1.00	0.00
ATOM	2006	CE2	TYR	S	74	38.976	44.766	-0.754	1.00	0.00
ATOM	2007	CZ	TYR	S	74	39.807	43.697	-1.152	1.00	0.00

ATOM	2008	OH	TYR	S	74	39.680	43.188	-2.439	1.00	0.00
ATOM	2009	H	TYR	S	74	41.301	47.970	1.326	1.00	0.00
ATOM	2010	HH	TYR	S	74	39.485	43.914	-3.020	1.00	0.00
ATOM	2011	N	ASP	S	75	40.130	48.507	4.520	1.00	0.00
ATOM	2012	CA	ASP	S	75	39.808	48.925	5.887	1.00	0.00
ATOM	2013	C	ASP	S	75	38.309	48.945	6.087	1.00	0.00
ATOM	2014	O	ASP	S	75	37.536	49.635	5.411	1.00	0.00
ATOM	2015	CB	ASP	S	75	40.418	50.284	6.246	1.00	0.00
ATOM	2016	CG	ASP	S	75	40.537	50.543	7.752	1.00	0.00
ATOM	2017	OD1	ASP	S	75	39.767	50.011	8.554	1.00	0.00
ATOM	2018	OD2	ASP	S	75	41.412	51.316	8.135	1.00	0.00
ATOM	2019	H	ASP	S	75	39.894	49.099	3.752	1.00	0.00
ATOM	2020	N	LEU	S	76	37.951	48.062	7.019	1.00	0.00
ATOM	2021	CA	LEU	S	76	36.542	47.886	7.299	1.00	0.00
ATOM	2022	C	LEU	S	76	36.424	47.455	8.736	1.00	0.00
ATOM	2023	O	LEU	S	76	37.285	46.747	9.261	1.00	0.00
ATOM	2024	CB	LEU	S	76	35.928	46.864	6.332	1.00	0.00
ATOM	2025	CG	LEU	S	76	34.402	46.744	6.410	1.00	0.00
ATOM	2026	CD1	LEU	S	76	33.698	48.055	6.049	1.00	0.00
ATOM	2027	CD2	LEU	S	76	33.886	45.564	5.587	1.00	0.00
ATOM	2028	H	LEU	S	76	38.643	47.644	7.609	1.00	0.00
ATOM	2029	N	TYR	S	77	35.325	47.933	9.341	1.00	0.00
ATOM	2030	CA	TYR	S	77	35.061	47.558	10.725	1.00	0.00
ATOM	2031	C	TYR	S	77	33.813	46.702	10.844	1.00	0.00
ATOM	2032	O	TYR	S	77	32.685	47.112	10.536	1.00	0.00
ATOM	2033	CB	TYR	S	77	34.946	48.805	11.607	1.00	0.00
ATOM	2034	CG	TYR	S	77	36.296	49.301	12.086	1.00	0.00
ATOM	2035	CD1	TYR	S	77	36.511	49.350	13.477	1.00	0.00
ATOM	2036	CD2	TYR	S	77	37.290	49.716	11.171	1.00	0.00
ATOM	2037	CE1	TYR	S	77	37.736	49.828	13.968	1.00	0.00
ATOM	2038	CE2	TYR	S	77	38.520	50.192	11.660	1.00	0.00
ATOM	2039	CZ	TYR	S	77	38.727	50.239	13.055	1.00	0.00
ATOM	2040	OH	TYR	S	77	39.927	50.691	13.575	1.00	0.00
ATOM	2041	H	TYR	S	77	34.713	48.537	8.839	1.00	0.00
ATOM	2042	HH	TYR	S	77	40.507	50.842	12.826	1.00	0.00
ATOM	2043	N	LEU	S	78	34.078	45.477	11.314	1.00	0.00
ATOM	2044	CA	LEU	S	78	32.970	44.525	11.354	1.00	0.00
ATOM	2045	C	LEU	S	78	32.020	44.622	12.550	1.00	0.00
ATOM	2046	O	LEU	S	78	31.225	43.722	12.829	1.00	0.00
ATOM	2047	CB	LEU	S	78	33.511	43.109	11.142	1.00	0.00
ATOM	2048	CG	LEU	S	78	32.539	42.176	10.413	1.00	0.00
ATOM	2049	CD1	LEU	S	78	32.153	42.716	9.034	1.00	0.00
ATOM	2050	CD2	LEU	S	78	33.081	40.749	10.337	1.00	0.00
ATOM	2051	H	LEU	S	78	35.019	45.229	11.554	1.00	0.00
ATOM	2052	N	VAL	S	79	32.099	45.784	13.237	1.00	0.00
ATOM	2053	CA	VAL	S	79	31.228	46.163	14.364	1.00	0.00
ATOM	2054	C	VAL	S	79	29.849	45.510	14.450	1.00	0.00
ATOM	2055	O	VAL	S	79	28.885	46.029	13.887	1.00	0.00
ATOM	2056	CB	VAL	S	79	31.128	47.709	14.418	1.00	0.00
ATOM	2057	CG1	VAL	S	79	30.710	48.343	13.085	1.00	0.00
ATOM	2058	CG2	VAL	S	79	30.300	48.202	15.613	1.00	0.00
ATOM	2059	H	VAL	S	79	32.785	46.430	12.905	1.00	0.00
ATOM	2060	N	THR	S	80	29.759	44.362	15.137	1.00	0.00
ATOM	2061	CA	THR	S	80	28.472	43.657	15.092	1.00	0.00
ATOM	2062	C	THR	S	80	28.129	42.800	16.311	1.00	0.00
ATOM	2063	O	THR	S	80	27.025	42.894	16.845	1.00	0.00
ATOM	2064	CB	THR	S	80	28.308	42.876	13.752	1.00	0.00
ATOM	2065	OG1	THR	S	80	27.965	43.767	12.668	1.00	0.00
ATOM	2066	CG2	THR	S	80	27.295	41.722	13.784	1.00	0.00
ATOM	2067	H	THR	S	80	30.575	44.069	15.643	1.00	0.00
ATOM	2068	HG1	THR	S	80	27.009	43.703	12.585	1.00	0.00
ATOM	2069	N	ASN	S	81	29.065	41.915	16.693	1.00	0.00
ATOM	2070	CA	ASN	S	81	28.573	40.849	17.582	1.00	0.00
ATOM	2071	C	ASN	S	81	28.799	41.169	19.048	1.00	0.00
ATOM	2072	O	ASN	S	81	29.425	40.445	19.823	1.00	0.00
ATOM	2073	CB	ASN	S	81	29.160	39.484	17.168	1.00	0.00
ATOM	2074	CG	ASN	S	81	28.536	38.298	17.909	1.00	0.00

ATOM	2075	OD1	ASN	S	81	28.817	38.023	19.077	1.00	0.00
ATOM	2076	ND2	ASN	S	81	27.751	37.517	17.158	1.00	0.00
ATOM	2077	H	ASN	S	81	30.038	41.988	16.473	1.00	0.00
ATOM	2078	1HD2	ASN	S	81	27.297	36.718	17.545	1.00	0.00
ATOM	2079	2HD2	ASN	S	81	27.640	37.691	16.181	1.00	0.00
ATOM	2080	N	GLY	S	82	28.297	42.339	19.437	1.00	0.00
ATOM	2081	CA	GLY	S	82	28.789	42.765	20.738	1.00	0.00
ATOM	2082	C	GLY	S	82	27.848	42.677	21.896	1.00	0.00
ATOM	2083	O	GLY	S	82	28.002	41.892	22.824	1.00	0.00
ATOM	2084	H	GLY	S	82	27.810	42.910	18.773	1.00	0.00
ATOM	2085	N	LYS	S	83	26.857	43.576	21.784	1.00	0.00
ATOM	2086	CA	LYS	S	83	25.787	43.774	22.760	1.00	0.00
ATOM	2087	C	LYS	S	83	26.200	43.663	24.222	1.00	0.00
ATOM	2088	O	LYS	S	83	25.548	43.078	25.085	1.00	0.00
ATOM	2089	CB	LYS	S	83	24.535	42.979	22.356	1.00	0.00
ATOM	2090	CG	LYS	S	83	24.014	43.380	20.958	1.00	0.00
ATOM	2091	CD	LYS	S	83	24.650	42.620	19.780	1.00	0.00
ATOM	2092	CE	LYS	S	83	24.346	43.191	18.390	1.00	0.00
ATOM	2093	NZ	LYS	S	83	25.141	44.389	18.097	1.00	0.00
ATOM	2094	H	LYS	S	83	26.866	44.119	20.944	1.00	0.00
ATOM	2095	1HZ	LYS	S	83	24.521	45.193	17.870	1.00	0.00
ATOM	2096	2HZ	LYS	S	83	25.746	44.679	18.891	1.00	0.00
ATOM	2097	3HZ	LYS	S	83	25.750	44.229	17.268	1.00	0.00
ATOM	2098	N	HIS	S	84	27.360	44.316	24.450	1.00	0.00
ATOM	2099	CA	HIS	S	84	28.034	44.365	25.749	1.00	0.00
ATOM	2100	C	HIS	S	84	28.599	43.039	26.238	1.00	0.00
ATOM	2101	O	HIS	S	84	29.805	42.808	26.324	1.00	0.00
ATOM	2102	CB	HIS	S	84	27.157	45.056	26.812	1.00	0.00
ATOM	2103	CG	HIS	S	84	27.981	45.511	27.993	1.00	0.00
ATOM	2104	ND1	HIS	S	84	28.254	46.804	28.252	1.00	0.00
ATOM	2105	CD2	HIS	S	84	28.581	44.720	28.978	1.00	0.00
ATOM	2106	CE1	HIS	S	84	29.023	46.843	29.386	1.00	0.00
ATOM	2107	NE2	HIS	S	84	29.224	45.554	29.827	1.00	0.00
ATOM	2108	H	HIS	S	84	27.806	44.762	23.671	1.00	0.00
ATOM	2109	HD1	HIS	S	84	27.928	47.608	27.776	1.00	0.00
ATOM	2110	N	GLY	S	85	27.700	42.139	26.616	1.00	0.00
ATOM	2111	CA	GLY	S	85	28.221	40.945	27.251	1.00	0.00
ATOM	2112	C	GLY	S	85	28.107	41.001	28.758	1.00	0.00
ATOM	2113	O	GLY	S	85	27.018	40.967	29.323	1.00	0.00
ATOM	2114	H	GLY	S	85	26.723	42.299	26.492	1.00	0.00
ATOM	2115	N	LYS	S	86	29.288	40.990	29.407	1.00	0.00
ATOM	2116	CA	LYS	S	86	29.195	40.412	30.753	1.00	0.00
ATOM	2117	C	LYS	S	86	29.446	41.218	32.028	1.00	0.00
ATOM	2118	O	LYS	S	86	29.080	40.709	33.079	1.00	0.00
ATOM	2119	CB	LYS	S	86	29.919	39.049	30.833	1.00	0.00
ATOM	2120	CG	LYS	S	86	29.703	38.162	29.596	1.00	0.00
ATOM	2121	CD	LYS	S	86	30.014	36.667	29.739	1.00	0.00
ATOM	2122	CE	LYS	S	86	28.920	35.903	30.493	1.00	0.00
ATOM	2123	NZ	LYS	S	86	29.117	34.452	30.347	1.00	0.00
ATOM	2124	H	LYS	S	86	30.126	41.167	28.888	1.00	0.00
ATOM	2125	1HZ	LYS	S	86	30.014	34.140	30.767	1.00	0.00
ATOM	2126	2HZ	LYS	S	86	28.338	33.952	30.812	1.00	0.00
ATOM	2127	3HZ	LYS	S	86	29.106	34.182	29.347	1.00	0.00
ATOM	2128	N	LYS	S	87	30.078	42.417	31.917	1.00	0.00
ATOM	2129	CA	LYS	S	87	30.596	43.210	33.060	1.00	0.00
ATOM	2130	C	LYS	S	87	30.162	42.886	34.500	1.00	0.00
ATOM	2131	O	LYS	S	87	29.480	43.661	35.172	1.00	0.00
ATOM	2132	CB	LYS	S	87	30.403	44.719	32.780	1.00	0.00
ATOM	2133	CG	LYS	S	87	31.159	45.733	33.672	1.00	0.00
ATOM	2134	CD	LYS	S	87	30.624	47.169	33.516	1.00	0.00
ATOM	2135	CE	LYS	S	87	31.132	48.194	34.550	1.00	0.00
ATOM	2136	NZ	LYS	S	87	32.417	48.801	34.171	1.00	0.00
ATOM	2137	H	LYS	S	87	30.234	42.768	30.995	1.00	0.00
ATOM	2138	1HZ	LYS	S	87	33.097	48.092	33.826	1.00	0.00
ATOM	2139	2HZ	LYS	S	87	32.295	49.571	33.489	1.00	0.00
ATOM	2140	3HZ	LYS	S	87	32.918	49.219	34.984	1.00	0.00
ATOM	2141	N	ILE	S	88	30.636	41.743	34.993	1.00	0.00

ATOM	2142	CA	ILE	S	88	30.224	41.419	36.352	1.00	0.00
ATOM	2143	C	ILE	S	88	31.419	41.186	37.247	1.00	0.00
ATOM	2144	O	ILE	S	88	32.209	40.276	37.032	1.00	0.00
ATOM	2145	CB	ILE	S	88	29.196	40.266	36.375	1.00	0.00
ATOM	2146	CG1	ILE	S	88	28.674	40.002	37.792	1.00	0.00
ATOM	2147	CG2	ILE	S	88	29.744	38.980	35.736	1.00	0.00
ATOM	2148	CD1	ILE	S	88	27.537	38.979	37.835	1.00	0.00
ATOM	2149	H	ILE	S	88	31.277	41.176	34.475	1.00	0.00
ATOM	2150	N	ASN	S	89	31.525	42.101	38.234	1.00	0.00
ATOM	2151	CA	ASN	S	89	32.584	42.010	39.251	1.00	0.00
ATOM	2152	C	ASN	S	89	33.952	41.606	38.725	1.00	0.00
ATOM	2153	O	ASN	S	89	34.384	40.457	38.825	1.00	0.00
ATOM	2154	CB	ASN	S	89	32.139	41.086	40.384	1.00	0.00
ATOM	2155	CG	ASN	S	89	33.057	41.242	41.577	1.00	0.00
ATOM	2156	OD1	ASN	S	89	32.886	42.117	42.412	1.00	0.00
ATOM	2157	ND2	ASN	S	89	33.980	40.283	41.684	1.00	0.00
ATOM	2158	H	ASN	S	89	30.794	42.764	38.394	1.00	0.00
ATOM	2159	1HD2	ASN	S	89	34.456	40.102	42.547	1.00	0.00
ATOM	2160	2HD2	ASN	S	89	34.199	39.759	40.856	1.00	0.00
ATOM	2161	N	GLY	S	90	34.576	42.595	38.078	1.00	0.00
ATOM	2162	CA	GLY	S	90	35.815	42.291	37.371	1.00	0.00
ATOM	2163	C	GLY	S	90	35.621	41.634	36.014	1.00	0.00
ATOM	2164	O	GLY	S	90	36.040	42.139	34.975	1.00	0.00
ATOM	2165	H	GLY	S	90	34.200	43.515	38.133	1.00	0.00
ATOM	2166	N	THR	S	91	34.994	40.448	36.028	1.00	0.00
ATOM	2167	CA	THR	S	91	35.062	39.721	34.762	1.00	0.00
ATOM	2168	C	THR	S	91	34.222	40.284	33.626	1.00	0.00
ATOM	2169	O	THR	S	91	33.133	40.834	33.774	1.00	0.00
ATOM	2170	CB	THR	S	91	34.878	38.205	34.938	1.00	0.00
ATOM	2171	OG1	THR	S	91	35.310	37.512	33.754	1.00	0.00
ATOM	2172	CG2	THR	S	91	33.455	37.794	35.323	1.00	0.00
ATOM	2173	H	THR	S	91	34.509	40.120	36.842	1.00	0.00
ATOM	2174	HG1	THR	S	91	35.558	36.650	34.082	1.00	0.00
ATOM	2175	N	TRP	S	92	34.830	40.154	32.448	1.00	0.00
ATOM	2176	CA	TRP	S	92	34.259	40.801	31.285	1.00	0.00
ATOM	2177	C	TRP	S	92	34.705	40.058	30.048	1.00	0.00
ATOM	2178	O	TRP	S	92	35.885	39.888	29.773	1.00	0.00
ATOM	2179	CB	TRP	S	92	34.691	42.272	31.269	1.00	0.00
ATOM	2180	CG	TRP	S	92	33.779	43.151	30.443	1.00	0.00
ATOM	2181	CD1	TRP	S	92	32.956	42.784	29.365	1.00	0.00
ATOM	2182	CD2	TRP	S	92	33.603	44.577	30.582	1.00	0.00
ATOM	2183	NE1	TRP	S	92	32.311	43.859	28.844	1.00	0.00
ATOM	2184	CE2	TRP	S	92	32.686	44.990	29.559	1.00	0.00
ATOM	2185	CE3	TRP	S	92	34.137	45.530	31.475	1.00	0.00
ATOM	2186	CZ2	TRP	S	92	32.336	46.352	29.441	1.00	0.00
ATOM	2187	CZ3	TRP	S	92	33.773	46.889	31.346	1.00	0.00
ATOM	2188	CH2	TRP	S	92	32.881	47.299	30.332	1.00	0.00
ATOM	2189	H	TRP	S	92	35.709	39.677	32.374	1.00	0.00
ATOM	2190	HE1	TRP	S	92	31.630	43.837	28.131	1.00	0.00
ATOM	2191	N	ASN	S	93	33.685	39.608	29.315	1.00	0.00
ATOM	2192	CA	ASN	S	93	33.914	39.131	27.955	1.00	0.00
ATOM	2193	C	ASN	S	93	32.703	39.552	27.144	1.00	0.00
ATOM	2194	O	ASN	S	93	31.717	39.996	27.737	1.00	0.00
ATOM	2195	CB	ASN	S	93	34.249	37.625	27.890	1.00	0.00
ATOM	2196	CG	ASN	S	93	35.160	37.405	26.690	1.00	0.00
ATOM	2197	OD1	ASN	S	93	35.373	38.318	25.910	1.00	0.00
ATOM	2198	ND2	ASN	S	93	35.666	36.176	26.526	1.00	0.00
ATOM	2199	H	ASN	S	93	32.758	39.840	29.600	1.00	0.00
ATOM	2200	1HD2	ASN	S	93	36.149	35.985	25.664	1.00	0.00
ATOM	2201	2HD2	ASN	S	93	35.624	35.460	27.220	1.00	0.00
ATOM	2202	N	GLY	S	94	32.808	39.464	25.814	1.00	0.00
ATOM	2203	CA	GLY	S	94	31.973	40.347	25.005	1.00	0.00
ATOM	2204	C	GLY	S	94	32.818	41.583	24.815	1.00	0.00
ATOM	2205	O	GLY	S	94	34.015	41.449	24.583	1.00	0.00
ATOM	2206	H	GLY	S	94	33.653	39.082	25.431	1.00	0.00
ATOM	2207	N	MET	S	95	32.195	42.752	25.042	1.00	0.00
ATOM	2208	CA	MET	S	95	32.857	44.066	24.990	1.00	0.00

ATOM	2209	C	MET	S	95	34.317	44.143	25.442	1.00	0.00
ATOM	2210	O	MET	S	95	35.210	43.765	24.688	1.00	0.00
ATOM	2211	CB	MET	S	95	31.980	45.121	25.660	1.00	0.00
ATOM	2212	CG	MET	S	95	32.230	46.508	25.084	1.00	0.00
ATOM	2213	SD	MET	S	95	31.331	47.785	25.959	1.00	0.00
ATOM	2214	CE	MET	S	95	31.657	49.096	24.773	1.00	0.00
ATOM	2215	H	MET	S	95	31.197	42.708	25.076	1.00	0.00
ATOM	2216	N	ILE	S	96	34.598	44.584	26.689	1.00	0.00
ATOM	2217	CA	ILE	S	96	36.025	44.470	27.019	1.00	0.00
ATOM	2218	C	ILE	S	96	36.445	43.172	27.691	1.00	0.00
ATOM	2219	O	ILE	S	96	36.810	43.005	28.858	1.00	0.00
ATOM	2220	CB	ILE	S	96	36.673	45.750	27.577	1.00	0.00
ATOM	2221	CG1	ILE	S	96	36.366	46.085	29.029	1.00	0.00
ATOM	2222	CG2	ILE	S	96	36.308	46.914	26.651	1.00	0.00
ATOM	2223	CD1	ILE	S	96	37.564	45.875	29.962	1.00	0.00
ATOM	2224	H	ILE	S	96	33.920	44.894	27.355	1.00	0.00
ATOM	2225	N	GLY	S	97	36.352	42.217	26.761	1.00	0.00
ATOM	2226	CA	GLY	S	97	36.918	40.893	26.891	1.00	0.00
ATOM	2227	C	GLY	S	97	37.509	40.450	25.566	1.00	0.00
ATOM	2228	O	GLY	S	97	38.583	39.866	25.538	1.00	0.00
ATOM	2229	H	GLY	S	97	35.918	42.463	25.896	1.00	0.00
ATOM	2230	N	GLU	S	98	36.781	40.754	24.476	1.00	0.00
ATOM	2231	CA	GLU	S	98	37.325	40.390	23.159	1.00	0.00
ATOM	2232	C	GLU	S	98	37.934	41.541	22.379	1.00	0.00
ATOM	2233	O	GLU	S	98	38.792	41.391	21.504	1.00	0.00
ATOM	2234	CB	GLU	S	98	36.308	39.619	22.312	1.00	0.00
ATOM	2235	CG	GLU	S	98	35.821	38.279	22.895	1.00	0.00
ATOM	2236	CD	GLU	S	98	36.921	37.228	23.056	1.00	0.00
ATOM	2237	OE1	GLU	S	98	37.990	37.514	23.571	1.00	0.00
ATOM	2238	OE2	GLU	S	98	36.721	36.084	22.679	1.00	0.00
ATOM	2239	H	GLU	S	98	35.914	41.243	24.547	1.00	0.00
ATOM	2240	N	VAL	S	99	37.528	42.743	22.827	1.00	0.00
ATOM	2241	CA	VAL	S	99	38.400	43.910	22.694	1.00	0.00
ATOM	2242	C	VAL	S	99	39.758	43.639	23.313	1.00	0.00
ATOM	2243	O	VAL	S	99	40.801	43.995	22.777	1.00	0.00
ATOM	2244	CB	VAL	S	99	37.751	45.135	23.362	1.00	0.00
ATOM	2245	CG1	VAL	S	99	38.635	46.376	23.438	1.00	0.00
ATOM	2246	CG2	VAL	S	99	36.476	45.504	22.634	1.00	0.00
ATOM	2247	H	VAL	S	99	36.666	42.786	23.327	1.00	0.00
ATOM	2248	N	VAL	S	100	39.682	42.979	24.483	1.00	0.00
ATOM	2249	CA	VAL	S	100	40.964	42.612	25.068	1.00	0.00
ATOM	2250	C	VAL	S	100	41.689	41.581	24.221	1.00	0.00
ATOM	2251	O	VAL	S	100	42.804	41.792	23.745	1.00	0.00
ATOM	2252	CB	VAL	S	100	40.770	42.146	26.521	1.00	0.00
ATOM	2253	CG1	VAL	S	100	42.077	41.704	27.183	1.00	0.00
ATOM	2254	CG2	VAL	S	100	40.078	43.233	27.345	1.00	0.00
ATOM	2255	H	VAL	S	100	38.843	42.485	24.690	1.00	0.00
ATOM	2256	N	MET	S	101	41.014	40.439	24.051	1.00	0.00
ATOM	2257	CA	MET	S	101	41.773	39.285	23.587	1.00	0.00
ATOM	2258	C	MET	S	101	41.785	38.998	22.087	1.00	0.00
ATOM	2259	O	MET	S	101	42.147	37.893	21.678	1.00	0.00
ATOM	2260	CB	MET	S	101	41.340	38.052	24.385	1.00	0.00
ATOM	2261	CG	MET	S	101	41.444	38.210	25.902	1.00	0.00
ATOM	2262	SD	MET	S	101	40.618	36.895	26.816	1.00	0.00
ATOM	2263	CE	MET	S	101	40.945	37.516	28.473	1.00	0.00
ATOM	2264	H	MET	S	101	40.058	40.317	24.318	1.00	0.00
ATOM	2265	N	LYS	S	102	41.411	40.018	21.287	1.00	0.00
ATOM	2266	CA	LYS	S	102	41.495	40.002	19.816	1.00	0.00
ATOM	2267	C	LYS	S	102	40.327	39.461	18.982	1.00	0.00
ATOM	2268	O	LYS	S	102	40.429	39.462	17.757	1.00	0.00
ATOM	2269	CB	LYS	S	102	42.803	39.405	19.243	1.00	0.00
ATOM	2270	CG	LYS	S	102	44.067	40.274	19.133	1.00	0.00
ATOM	2271	CD	LYS	S	102	44.668	40.782	20.445	1.00	0.00
ATOM	2272	CE	LYS	S	102	46.113	41.295	20.313	1.00	0.00
ATOM	2273	NZ	LYS	S	102	46.232	42.437	19.397	1.00	0.00
ATOM	2274	H	LYS	S	102	40.993	40.810	21.737	1.00	0.00
ATOM	2275	1HZ	LYS	S	102	46.207	42.188	18.393	1.00	0.00

ATOM	2276	2HZ	LYS	S	102	45.462	43.106	19.574	1.00	0.00
ATOM	2277	3HZ	LYS	S	102	47.111	42.974	19.553	1.00	0.00
ATOM	2278	N	ARG	S	103	39.217	39.008	19.622	1.00	0.00
ATOM	2279	CA	ARG	S	103	38.109	38.662	18.695	1.00	0.00
ATOM	2280	C	ARG	S	103	37.309	39.852	18.189	1.00	0.00
ATOM	2281	O	ARG	S	103	36.414	39.791	17.342	1.00	0.00
ATOM	2282	CB	ARG	S	103	37.114	37.664	19.285	1.00	0.00
ATOM	2283	CG	ARG	S	103	37.184	36.247	18.707	1.00	0.00
ATOM	2284	CD	ARG	S	103	38.468	35.519	19.093	1.00	0.00
ATOM	2285	NE	ARG	S	103	38.659	35.620	20.534	1.00	0.00
ATOM	2286	CZ	ARG	S	103	39.883	35.744	21.072	1.00	0.00
ATOM	2287	NH1	ARG	S	103	39.985	36.000	22.363	1.00	0.00
ATOM	2288	NH2	ARG	S	103	40.978	35.601	20.331	1.00	0.00
ATOM	2289	H	ARG	S	103	39.076	39.256	20.583	1.00	0.00
ATOM	2290	HE	ARG	S	103	37.864	35.691	21.140	1.00	0.00
ATOM	2291	1HH1	ARG	S	103	40.875	36.036	22.810	1.00	0.00
ATOM	2292	2HH1	ARG	S	103	39.160	36.205	22.904	1.00	0.00
ATOM	2293	1HH2	ARG	S	103	41.880	35.743	20.736	1.00	0.00
ATOM	2294	2HH2	ARG	S	103	40.910	35.341	19.371	1.00	0.00
ATOM	2295	N	ALA	S	104	37.640	40.956	18.844	1.00	0.00
ATOM	2296	CA	ALA	S	104	37.459	42.257	18.256	1.00	0.00
ATOM	2297	C	ALA	S	104	38.844	42.870	18.268	1.00	0.00
ATOM	2298	O	ALA	S	104	39.852	42.217	18.550	1.00	0.00
ATOM	2299	CB	ALA	S	104	36.519	43.064	19.150	1.00	0.00
ATOM	2300	H	ALA	S	104	38.285	40.937	19.600	1.00	0.00
ATOM	2301	N	TYR	S	105	38.891	44.173	18.034	1.00	0.00
ATOM	2302	CA	TYR	S	105	40.010	44.884	18.654	1.00	0.00
ATOM	2303	C	TYR	S	105	39.500	45.917	19.629	1.00	0.00
ATOM	2304	O	TYR	S	105	40.045	46.169	20.707	1.00	0.00
ATOM	2305	CB	TYR	S	105	40.911	45.557	17.613	1.00	0.00
ATOM	2306	CG	TYR	S	105	42.225	44.824	17.438	1.00	0.00
ATOM	2307	CD1	TYR	S	105	43.430	45.532	17.625	1.00	0.00
ATOM	2308	CD2	TYR	S	105	42.219	43.463	17.075	1.00	0.00
ATOM	2309	CE1	TYR	S	105	44.655	44.869	17.435	1.00	0.00
ATOM	2310	CE2	TYR	S	105	43.438	42.800	16.880	1.00	0.00
ATOM	2311	CZ	TYR	S	105	44.640	43.509	17.065	1.00	0.00
ATOM	2312	OH	TYR	S	105	45.834	42.830	16.873	1.00	0.00
ATOM	2313	H	TYR	S	105	38.081	44.613	17.642	1.00	0.00
ATOM	2314	HH	TYR	S	105	45.859	42.729	15.910	1.00	0.00
ATOM	2315	N	MET	S	106	38.409	46.532	19.164	1.00	0.00
ATOM	2316	CA	MET	S	106	37.808	47.670	19.841	1.00	0.00
ATOM	2317	C	MET	S	106	36.321	47.357	19.917	1.00	0.00
ATOM	2318	O	MET	S	106	35.887	46.281	19.498	1.00	0.00
ATOM	2319	CB	MET	S	106	38.217	48.908	19.022	1.00	0.00
ATOM	2320	CG	MET	S	106	37.806	50.308	19.479	1.00	0.00
ATOM	2321	SD	MET	S	106	36.146	50.688	18.913	1.00	0.00
ATOM	2322	CE	MET	S	106	36.071	52.429	19.341	1.00	0.00
ATOM	2323	H	MET	S	106	37.994	46.188	18.325	1.00	0.00
ATOM	2324	N	ALA	S	107	35.536	48.288	20.452	1.00	0.00
ATOM	2325	CA	ALA	S	107	34.101	48.085	20.406	1.00	0.00
ATOM	2326	C	ALA	S	107	33.394	49.358	20.028	1.00	0.00
ATOM	2327	O	ALA	S	107	32.969	50.113	20.897	1.00	0.00
ATOM	2328	CB	ALA	S	107	33.576	47.623	21.763	1.00	0.00
ATOM	2329	H	ALA	S	107	35.914	49.133	20.815	1.00	0.00
ATOM	2330	N	VAL	S	108	33.276	49.603	18.702	1.00	0.00
ATOM	2331	CA	VAL	S	108	32.669	50.875	18.291	1.00	0.00
ATOM	2332	C	VAL	S	108	31.159	50.983	18.440	1.00	0.00
ATOM	2333	O	VAL	S	108	30.371	50.829	17.513	1.00	0.00
ATOM	2334	CB	VAL	S	108	33.062	51.375	16.888	1.00	0.00
ATOM	2335	CG1	VAL	S	108	33.193	52.899	16.951	1.00	0.00
ATOM	2336	CG2	VAL	S	108	34.302	50.750	16.255	1.00	0.00
ATOM	2337	H	VAL	S	108	33.465	48.889	18.029	1.00	0.00
ATOM	2338	N	GLY	S	109	30.836	51.336	19.679	1.00	0.00
ATOM	2339	CA	GLY	S	109	29.671	52.088	20.110	1.00	0.00
ATOM	2340	C	GLY	S	109	30.294	53.008	21.134	1.00	0.00
ATOM	2341	O	GLY	S	109	30.534	52.655	22.288	1.00	0.00
ATOM	2342	H	GLY	S	109	31.519	51.179	20.387	1.00	0.00

ATOM	2343	N	SER	S	110	30.726	54.175	20.618	1.00	0.00
ATOM	2344	CA	SER	S	110	31.449	55.193	21.402	1.00	0.00
ATOM	2345	C	SER	S	110	32.482	54.744	22.463	1.00	0.00
ATOM	2346	O	SER	S	110	32.328	55.013	23.657	1.00	0.00
ATOM	2347	CB	SER	S	110	30.399	56.169	21.957	1.00	0.00
ATOM	2348	OG	SER	S	110	29.093	55.557	22.060	1.00	0.00
ATOM	2349	H	SER	S	110	30.367	54.350	19.703	1.00	0.00
ATOM	2350	HG	SER	S	110	28.490	56.303	22.153	1.00	0.00
ATOM	2351	N	LEU	S	111	33.514	53.991	22.012	1.00	0.00
ATOM	2352	CA	LEU	S	111	34.325	53.379	23.069	1.00	0.00
ATOM	2353	C	LEU	S	111	35.268	54.280	23.845	1.00	0.00
ATOM	2354	O	LEU	S	111	36.461	54.438	23.592	1.00	0.00
ATOM	2355	CB	LEU	S	111	35.065	52.117	22.636	1.00	0.00
ATOM	2356	CG	LEU	S	111	34.807	50.912	23.545	1.00	0.00
ATOM	2357	CD1	LEU	S	111	35.848	49.828	23.331	1.00	0.00
ATOM	2358	CD2	LEU	S	111	34.738	51.251	25.025	1.00	0.00
ATOM	2359	H	LEU	S	111	33.819	54.048	21.065	1.00	0.00
ATOM	2360	N	THR	S	112	34.626	54.832	24.870	1.00	0.00
ATOM	2361	CA	THR	S	112	35.300	55.570	25.915	1.00	0.00
ATOM	2362	C	THR	S	112	36.276	54.654	26.637	1.00	0.00
ATOM	2363	O	THR	S	112	35.969	53.500	26.964	1.00	0.00
ATOM	2364	CB	THR	S	112	34.217	56.087	26.870	1.00	0.00
ATOM	2365	OG1	THR	S	112	33.113	56.693	26.166	1.00	0.00
ATOM	2366	CG2	THR	S	112	34.769	57.059	27.906	1.00	0.00
ATOM	2367	H	THR	S	112	33.654	54.621	24.929	1.00	0.00
ATOM	2368	HG1	THR	S	112	32.995	56.265	25.311	1.00	0.00
ATOM	2369	N	ILE	S	113	37.454	55.227	26.900	1.00	0.00
ATOM	2370	CA	ILE	S	113	38.306	54.549	27.869	1.00	0.00
ATOM	2371	C	ILE	S	113	37.648	54.737	29.209	1.00	0.00
ATOM	2372	O	ILE	S	113	37.318	55.871	29.548	1.00	0.00
ATOM	2373	CB	ILE	S	113	39.718	55.145	27.943	1.00	0.00
ATOM	2374	CG1	ILE	S	113	40.132	55.962	26.716	1.00	0.00
ATOM	2375	CG2	ILE	S	113	40.695	54.003	28.219	1.00	0.00
ATOM	2376	CD1	ILE	S	113	41.513	56.606	26.853	1.00	0.00
ATOM	2377	H	ILE	S	113	37.599	56.180	26.630	1.00	0.00
ATOM	2378	N	ASN	S	114	37.418	53.635	29.893	1.00	0.00
ATOM	2379	CA	ASN	S	114	37.164	53.774	31.309	1.00	0.00
ATOM	2380	C	ASN	S	114	38.264	52.970	31.938	1.00	0.00
ATOM	2381	O	ASN	S	114	38.773	52.034	31.330	1.00	0.00
ATOM	2382	CB	ASN	S	114	35.786	53.239	31.686	1.00	0.00
ATOM	2383	CG	ASN	S	114	35.586	53.427	33.174	1.00	0.00
ATOM	2384	OD1	ASN	S	114	35.954	52.594	33.999	1.00	0.00
ATOM	2385	ND2	ASN	S	114	34.980	54.567	33.508	1.00	0.00
ATOM	2386	H	ASN	S	114	37.746	52.766	29.545	1.00	0.00
ATOM	2387	1HD2	ASN	S	114	34.831	54.749	34.482	1.00	0.00
ATOM	2388	2HD2	ASN	S	114	34.614	55.246	32.861	1.00	0.00
ATOM	2389	N	GLU	S	115	38.621	53.398	33.134	1.00	0.00
ATOM	2390	CA	GLU	S	115	39.642	52.804	33.985	1.00	0.00
ATOM	2391	C	GLU	S	115	39.789	51.280	33.885	1.00	0.00
ATOM	2392	O	GLU	S	115	40.882	50.756	33.689	1.00	0.00
ATOM	2393	CB	GLU	S	115	39.424	53.334	35.413	1.00	0.00
ATOM	2394	CG	GLU	S	115	39.676	54.851	35.633	1.00	0.00
ATOM	2395	CD	GLU	S	115	38.686	55.798	34.940	1.00	0.00
ATOM	2396	OE1	GLU	S	115	39.083	56.860	34.473	1.00	0.00
ATOM	2397	OE2	GLU	S	115	37.502	55.497	34.854	1.00	0.00
ATOM	2398	H	GLU	S	115	38.210	54.266	33.393	1.00	0.00
ATOM	2399	N	GLU	S	116	38.642	50.571	33.932	1.00	0.00
ATOM	2400	CA	GLU	S	116	38.696	49.111	33.733	1.00	0.00
ATOM	2401	C	GLU	S	116	39.407	48.667	32.458	1.00	0.00
ATOM	2402	O	GLU	S	116	40.285	47.811	32.422	1.00	0.00
ATOM	2403	CB	GLU	S	116	37.284	48.535	33.758	1.00	0.00
ATOM	2404	CG	GLU	S	116	36.635	48.654	35.138	1.00	0.00
ATOM	2405	CD	GLU	S	116	35.162	48.298	35.078	1.00	0.00
ATOM	2406	OE1	GLU	S	116	34.739	47.518	34.234	1.00	0.00
ATOM	2407	OE2	GLU	S	116	34.401	48.821	35.876	1.00	0.00
ATOM	2408	H	GLU	S	116	37.804	51.106	34.034	1.00	0.00
ATOM	2409	N	ARG	S	117	38.996	49.363	31.403	1.00	0.00

ATOM	2410	CA	ARG	S	117	39.587	49.215	30.082	1.00	0.00
ATOM	2411	C	ARG	S	117	41.050	49.645	30.018	1.00	0.00
ATOM	2412	O	ARG	S	117	41.901	48.930	29.502	1.00	0.00
ATOM	2413	CB	ARG	S	117	38.705	49.986	29.087	1.00	0.00
ATOM	2414	CG	ARG	S	117	37.222	49.606	29.214	1.00	0.00
ATOM	2415	CD	ARG	S	117	36.226	50.518	28.493	1.00	0.00
ATOM	2416	NE	ARG	S	117	34.939	49.839	28.298	1.00	0.00
ATOM	2417	CZ	ARG	S	117	33.769	50.507	28.168	1.00	0.00
ATOM	2418	NH1	ARG	S	117	33.731	51.814	28.416	1.00	0.00
ATOM	2419	NH2	ARG	S	117	32.668	49.857	27.790	1.00	0.00
ATOM	2420	H	ARG	S	117	38.326	50.067	31.617	1.00	0.00
ATOM	2421	HE	ARG	S	117	34.980	48.877	28.002	1.00	0.00
ATOM	2422	1HH1	ARG	S	117	32.881	52.330	28.323	1.00	0.00
ATOM	2423	2HH1	ARG	S	117	34.551	52.310	28.707	1.00	0.00
ATOM	2424	1HH2	ARG	S	117	31.805	50.330	27.578	1.00	0.00
ATOM	2425	2HH2	ARG	S	117	32.682	48.863	27.646	1.00	0.00
ATOM	2426	N	SER	S	118	41.300	50.843	30.577	1.00	0.00
ATOM	2427	CA	SER	S	118	42.533	51.597	30.326	1.00	0.00
ATOM	2428	C	SER	S	118	43.838	50.858	30.061	1.00	0.00
ATOM	2429	O	SER	S	118	44.394	50.937	28.968	1.00	0.00
ATOM	2430	CB	SER	S	118	42.737	52.661	31.409	1.00	0.00
ATOM	2431	OG	SER	S	118	41.610	53.552	31.456	1.00	0.00
ATOM	2432	H	SER	S	118	40.562	51.306	31.065	1.00	0.00
ATOM	2433	HG	SER	S	118	41.576	53.854	32.364	1.00	0.00
ATOM	2434	N	GLU	S	119	44.324	50.171	31.092	1.00	0.00
ATOM	2435	CA	GLU	S	119	45.704	49.746	30.889	1.00	0.00
ATOM	2436	C	GLU	S	119	45.889	48.418	30.177	1.00	0.00
ATOM	2437	O	GLU	S	119	46.963	48.063	29.678	1.00	0.00
ATOM	2438	CB	GLU	S	119	46.517	49.940	32.175	1.00	0.00
ATOM	2439	CG	GLU	S	119	47.973	50.399	31.957	1.00	0.00
ATOM	2440	CD	GLU	S	119	48.106	51.651	31.083	1.00	0.00
ATOM	2441	OE1	GLU	S	119	49.157	51.841	30.482	1.00	0.00
ATOM	2442	OE2	GLU	S	119	47.169	52.431	30.934	1.00	0.00
ATOM	2443	H	GLU	S	119	43.807	49.954	31.913	1.00	0.00
ATOM	2444	N	VAL	S	120	44.745	47.726	30.070	1.00	0.00
ATOM	2445	CA	VAL	S	120	44.774	46.734	29.010	1.00	0.00
ATOM	2446	C	VAL	S	120	44.346	47.368	27.695	1.00	0.00
ATOM	2447	O	VAL	S	120	45.151	47.733	26.837	1.00	0.00
ATOM	2448	CB	VAL	S	120	43.938	45.495	29.358	1.00	0.00
ATOM	2449	CG1	VAL	S	120	44.258	44.364	28.379	1.00	0.00
ATOM	2450	CG2	VAL	S	120	44.149	45.051	30.808	1.00	0.00
ATOM	2451	H	VAL	S	120	43.902	48.074	30.466	1.00	0.00
ATOM	2452	N	VAL	S	121	43.030	47.503	27.544	1.00	0.00
ATOM	2453	CA	VAL	S	121	42.565	48.172	26.338	1.00	0.00
ATOM	2454	C	VAL	S	121	42.345	49.673	26.472	1.00	0.00
ATOM	2455	O	VAL	S	121	41.301	50.161	26.885	1.00	0.00
ATOM	2456	CB	VAL	S	121	41.345	47.428	25.798	1.00	0.00
ATOM	2457	CG1	VAL	S	121	41.817	46.086	25.256	1.00	0.00
ATOM	2458	CG2	VAL	S	121	40.247	47.216	26.845	1.00	0.00
ATOM	2459	H	VAL	S	121	42.455	47.370	28.351	1.00	0.00
ATOM	2460	N	ASP	S	122	43.393	50.434	26.088	1.00	0.00
ATOM	2461	CA	ASP	S	122	43.110	51.881	26.053	1.00	0.00
ATOM	2462	C	ASP	S	122	42.550	52.317	24.721	1.00	0.00
ATOM	2463	O	ASP	S	122	42.641	51.556	23.757	1.00	0.00
ATOM	2464	CB	ASP	S	122	44.313	52.758	26.437	1.00	0.00
ATOM	2465	CG	ASP	S	122	45.453	52.640	25.447	1.00	0.00
ATOM	2466	OD1	ASP	S	122	46.487	52.116	25.807	1.00	0.00
ATOM	2467	OD2	ASP	S	122	45.336	53.064	24.308	1.00	0.00
ATOM	2468	H	ASP	S	122	44.282	50.069	25.796	1.00	0.00
ATOM	2469	N	PHE	S	123	41.993	53.547	24.697	1.00	0.00
ATOM	2470	CA	PHE	S	123	41.268	54.039	23.515	1.00	0.00
ATOM	2471	C	PHE	S	123	41.718	55.419	23.014	1.00	0.00
ATOM	2472	O	PHE	S	123	42.872	55.593	22.645	1.00	0.00
ATOM	2473	CB	PHE	S	123	39.749	53.916	23.728	1.00	0.00
ATOM	2474	CG	PHE	S	123	39.375	52.484	24.036	1.00	0.00
ATOM	2475	CD1	PHE	S	123	38.868	52.169	25.313	1.00	0.00
ATOM	2476	CD2	PHE	S	123	39.571	51.482	23.061	1.00	0.00

ATOM	2477	CE1	PHE	S	123	38.623	50.825	25.644	1.00	0.00
ATOM	2478	CE2	PHE	S	123	39.341	50.135	23.393	1.00	0.00
ATOM	2479	CZ	PHE	S	123	38.899	49.821	24.695	1.00	0.00
ATOM	2480	H	PHE	S	123	42.230	54.146	25.458	1.00	0.00
ATOM	2481	N	SER	S	124	40.819	56.421	22.993	1.00	0.00
ATOM	2482	CA	SER	S	124	41.293	57.746	22.549	1.00	0.00
ATOM	2483	C	SER	S	124	40.611	58.862	23.342	1.00	0.00
ATOM	2484	O	SER	S	124	39.888	58.536	24.280	1.00	0.00
ATOM	2485	CB	SER	S	124	41.114	57.915	21.029	1.00	0.00
ATOM	2486	OG	SER	S	124	41.090	56.631	20.365	1.00	0.00
ATOM	2487	H	SER	S	124	39.890	56.344	23.349	1.00	0.00
ATOM	2488	HG	SER	S	124	40.602	56.778	19.545	1.00	0.00
ATOM	2489	N	VAL	S	125	40.865	60.149	22.980	1.00	0.00
ATOM	2490	CA	VAL	S	125	40.213	61.303	23.627	1.00	0.00
ATOM	2491	C	VAL	S	125	39.596	62.344	22.658	1.00	0.00
ATOM	2492	O	VAL	S	125	38.381	62.563	22.654	1.00	0.00
ATOM	2493	CB	VAL	S	125	41.126	61.973	24.690	1.00	0.00
ATOM	2494	CG1	VAL	S	125	40.380	63.049	25.483	1.00	0.00
ATOM	2495	CG2	VAL	S	125	41.806	60.972	25.627	1.00	0.00
ATOM	2496	H	VAL	S	125	41.430	60.323	22.174	1.00	0.00
ATOM	2497	N	PRO	S	126	40.429	62.992	21.786	1.00	0.00
ATOM	2498	CA	PRO	S	126	39.826	63.961	20.863	1.00	0.00
ATOM	2499	C	PRO	S	126	39.340	63.286	19.587	1.00	0.00
ATOM	2500	O	PRO	S	126	39.568	63.747	18.472	1.00	0.00
ATOM	2501	CB	PRO	S	126	41.003	64.906	20.620	1.00	0.00
ATOM	2502	CG	PRO	S	126	42.218	63.979	20.568	1.00	0.00
ATOM	2503	CD	PRO	S	126	41.881	62.911	21.603	1.00	0.00
ATOM	2504	N	PHE	S	127	38.733	62.102	19.774	1.00	0.00
ATOM	2505	CA	PHE	S	127	38.023	61.532	18.633	1.00	0.00
ATOM	2506	C	PHE	S	127	36.675	62.227	18.570	1.00	0.00
ATOM	2507	O	PHE	S	127	36.625	63.439	18.399	1.00	0.00
ATOM	2508	CB	PHE	S	127	37.960	60.009	18.785	1.00	0.00
ATOM	2509	CG	PHE	S	127	39.062	59.310	18.018	1.00	0.00
ATOM	2510	CD1	PHE	S	127	38.733	58.138	17.306	1.00	0.00
ATOM	2511	CD2	PHE	S	127	40.385	59.811	18.020	1.00	0.00
ATOM	2512	CE1	PHE	S	127	39.730	57.459	16.582	1.00	0.00
ATOM	2513	CE2	PHE	S	127	41.382	59.130	17.296	1.00	0.00
ATOM	2514	CZ	PHE	S	127	41.047	57.961	16.584	1.00	0.00
ATOM	2515	H	PHE	S	127	38.465	61.883	20.709	1.00	0.00
ATOM	2516	N	ILE	S	128	35.590	61.484	18.790	1.00	0.00
ATOM	2517	CA	ILE	S	128	34.401	62.192	19.252	1.00	0.00
ATOM	2518	C	ILE	S	128	34.491	62.472	20.761	1.00	0.00
ATOM	2519	O	ILE	S	128	35.385	61.963	21.456	1.00	0.00
ATOM	2520	CB	ILE	S	128	33.185	61.375	18.772	1.00	0.00
ATOM	2521	CG1	ILE	S	128	31.825	62.065	18.829	1.00	0.00
ATOM	2522	CG2	ILE	S	128	33.147	60.019	19.468	1.00	0.00
ATOM	2523	CD1	ILE	S	128	30.728	61.230	18.175	1.00	0.00
ATOM	2524	H	ILE	S	128	35.585	60.492	18.738	1.00	0.00
ATOM	2525	N	GLU	S	129	33.558	63.333	21.232	1.00	0.00
ATOM	2526	CA	GLU	S	129	33.604	64.060	22.514	1.00	0.00
ATOM	2527	C	GLU	S	129	34.345	63.473	23.696	1.00	0.00
ATOM	2528	O	GLU	S	129	34.524	62.260	23.838	1.00	0.00
ATOM	2529	CB	GLU	S	129	32.226	64.478	23.053	1.00	0.00
ATOM	2530	CG	GLU	S	129	31.044	64.524	22.087	1.00	0.00
ATOM	2531	CD	GLU	S	129	30.383	63.163	21.921	1.00	0.00
ATOM	2532	OE1	GLU	S	129	29.322	63.122	21.330	1.00	0.00
ATOM	2533	OE2	GLU	S	129	30.890	62.139	22.365	1.00	0.00
ATOM	2534	H	GLU	S	129	32.835	63.548	20.576	1.00	0.00
ATOM	2535	N	THR	S	130	34.739	64.433	24.551	1.00	0.00
ATOM	2536	CA	THR	S	130	35.421	64.072	25.787	1.00	0.00
ATOM	2537	C	THR	S	130	34.445	63.842	26.937	1.00	0.00
ATOM	2538	O	THR	S	130	34.261	64.660	27.837	1.00	0.00
ATOM	2539	CB	THR	S	130	36.478	65.129	26.147	1.00	0.00
ATOM	2540	OG1	THR	S	130	37.234	65.529	24.991	1.00	0.00
ATOM	2541	CG2	THR	S	130	37.413	64.669	27.272	1.00	0.00
ATOM	2542	H	THR	S	130	34.502	65.376	24.323	1.00	0.00
ATOM	2543	HG1	THR	S	130	36.621	65.961	24.401	1.00	0.00

ATOM	2544	N	GLY	S	131	33.797	62.666	26.885	1.00	0.00
ATOM	2545	CA	GLY	S	131	32.793	62.366	27.917	1.00	0.00
ATOM	2546	C	GLY	S	131	33.281	62.361	29.368	1.00	0.00
ATOM	2547	O	GLY	S	131	33.916	61.422	29.838	1.00	0.00
ATOM	2548	H	GLY	S	131	34.043	62.014	26.158	1.00	0.00
ATOM	2549	N	ILE	S	132	32.957	63.450	30.089	1.00	0.00
ATOM	2550	CA	ILE	S	132	33.245	63.382	31.522	1.00	0.00
ATOM	2551	C	ILE	S	132	31.955	63.250	32.341	1.00	0.00
ATOM	2552	O	ILE	S	132	31.114	62.430	31.963	1.00	0.00
ATOM	2553	CB	ILE	S	132	34.266	64.472	31.909	1.00	0.00
ATOM	2554	CG1	ILE	S	132	34.917	64.287	33.286	1.00	0.00
ATOM	2555	CG2	ILE	S	132	33.673	65.866	31.730	1.00	0.00
ATOM	2556	CD1	ILE	S	132	35.691	62.973	33.410	1.00	0.00
ATOM	2557	H	ILE	S	132	32.407	64.200	29.721	1.00	0.00
ATOM	2558	N	SER	S	133	31.760	63.986	33.443	1.00	0.00
ATOM	2559	CA	SER	S	133	30.681	63.559	34.308	1.00	0.00
ATOM	2560	C	SER	S	133	29.751	64.696	34.639	1.00	0.00
ATOM	2561	O	SER	S	133	30.109	65.737	35.189	1.00	0.00
ATOM	2562	CB	SER	S	133	31.276	62.819	35.506	1.00	0.00
ATOM	2563	OG	SER	S	133	32.198	61.821	35.008	1.00	0.00
ATOM	2564	H	SER	S	133	32.233	64.857	33.559	1.00	0.00
ATOM	2565	HG	SER	S	133	31.923	61.661	34.099	1.00	0.00
ATOM	2566	N	VAL	S	134	28.518	64.455	34.206	1.00	0.00
ATOM	2567	CA	VAL	S	134	27.472	65.468	34.293	1.00	0.00
ATOM	2568	C	VAL	S	134	27.322	66.122	35.648	1.00	0.00
ATOM	2569	O	VAL	S	134	27.247	65.490	36.699	1.00	0.00
ATOM	2570	CB	VAL	S	134	26.169	64.854	33.817	1.00	0.00
ATOM	2571	CG1	VAL	S	134	26.249	64.677	32.308	1.00	0.00
ATOM	2572	CG2	VAL	S	134	25.882	63.529	34.527	1.00	0.00
ATOM	2573	H	VAL	S	134	28.290	63.585	33.773	1.00	0.00
ATOM	2574	N	MET	S	135	27.373	67.458	35.593	1.00	0.00
ATOM	2575	CA	MET	S	135	27.111	68.192	36.822	1.00	0.00
ATOM	2576	C	MET	S	135	25.606	68.346	37.063	1.00	0.00
ATOM	2577	O	MET	S	135	25.102	68.686	38.130	1.00	0.00
ATOM	2578	CB	MET	S	135	27.922	69.491	36.776	1.00	0.00
ATOM	2579	CG	MET	S	135	27.668	70.423	37.952	1.00	0.00
ATOM	2580	SD	MET	S	135	28.882	71.716	38.203	1.00	0.00
ATOM	2581	CE	MET	S	135	29.853	70.909	39.484	1.00	0.00
ATOM	2582	H	MET	S	135	27.316	67.920	34.711	1.00	0.00
ATOM	2583	N	VAL	S	136	24.875	67.994	35.985	1.00	0.00
ATOM	2584	CA	VAL	S	136	23.418	68.136	35.851	1.00	0.00
ATOM	2585	C	VAL	S	136	22.559	67.975	37.109	1.00	0.00
ATOM	2586	O	VAL	S	136	22.838	67.203	38.030	1.00	0.00
ATOM	2587	CB	VAL	S	136	22.946	67.276	34.651	1.00	0.00
ATOM	2588	CG1	VAL	S	136	21.437	67.256	34.377	1.00	0.00
ATOM	2589	CG2	VAL	S	136	23.662	67.761	33.388	1.00	0.00
ATOM	2590	H	VAL	S	136	25.365	67.731	35.154	1.00	0.00
ATOM	2591	N	SER	S	137	21.536	68.847	37.076	1.00	0.00
ATOM	2592	CA	SER	S	137	20.538	69.002	38.123	1.00	0.00
ATOM	2593	C	SER	S	137	21.109	69.319	39.489	1.00	0.00
ATOM	2594	O	SER	S	137	21.481	68.414	40.226	1.00	0.00
ATOM	2595	CB	SER	S	137	19.625	67.772	38.109	1.00	0.00
ATOM	2596	OG	SER	S	137	19.118	67.612	36.767	1.00	0.00
ATOM	2597	H	SER	S	137	21.410	69.348	36.224	1.00	0.00
ATOM	2598	HG	SER	S	137	19.406	66.733	36.506	1.00	0.00
ATOM	2599	N	ARG	S	138	21.249	70.622	39.856	1.00	0.00
ATOM	2600	CA	ARG	S	138	20.552	71.746	39.222	1.00	0.00
ATOM	2601	C	ARG	S	138	21.464	72.960	39.049	1.00	0.00
ATOM	2602	O	ARG	S	138	22.674	72.866	39.260	1.00	0.00
ATOM	2603	CB	ARG	S	138	19.303	72.110	40.044	1.00	0.00
ATOM	2604	CG	ARG	S	138	18.146	71.102	39.983	1.00	0.00
ATOM	2605	CD	ARG	S	138	17.701	70.824	38.547	1.00	0.00
ATOM	2606	NE	ARG	S	138	16.411	70.155	38.422	1.00	0.00
ATOM	2607	CZ	ARG	S	138	16.057	69.593	37.243	1.00	0.00
ATOM	2608	NH1	ARG	S	138	14.797	69.271	37.043	1.00	0.00
ATOM	2609	NH2	ARG	S	138	16.956	69.348	36.300	1.00	0.00
ATOM	2610	H	ARG	S	138	21.808	70.756	40.667	1.00	0.00

ATOM	2611	HE	ARG	S	138	15.758	70.094	39.185	1.00	0.00
ATOM	2612	1HH1	ARG	S	138	14.540	68.783	36.204	1.00	0.00
ATOM	2613	2HH1	ARG	S	138	14.098	69.499	37.723	1.00	0.00
ATOM	2614	1HH2	ARG	S	138	16.660	68.923	35.438	1.00	0.00
ATOM	2615	2HH2	ARG	S	138	17.934	69.540	36.416	1.00	0.00
ATOM	2616	N	SER	S	139	20.851	74.084	38.658	1.00	0.00
ATOM	2617	CA	SER	S	139	21.637	75.261	38.315	1.00	0.00
ATOM	2618	C	SER	S	139	21.519	76.377	39.321	1.00	0.00
ATOM	2619	O	SER	S	139	20.607	76.430	40.153	1.00	0.00
ATOM	2620	CB	SER	S	139	21.179	75.779	36.954	1.00	0.00
ATOM	2621	OG	SER	S	139	21.000	74.663	36.087	1.00	0.00
ATOM	2622	H	SER	S	139	19.872	74.110	38.476	1.00	0.00
ATOM	2623	HG	SER	S	139	20.778	75.007	35.214	1.00	0.00
ATOM	2624	N	ASN	S	140	22.458	77.324	39.155	1.00	0.00
ATOM	2625	CA	ASN	S	140	22.263	78.634	39.775	1.00	0.00
ATOM	2626	C	ASN	S	140	20.983	79.271	39.279	1.00	0.00
ATOM	2627	O	ASN	S	140	20.497	78.856	38.231	1.00	0.00
ATOM	2628	CB	ASN	S	140	23.437	79.558	39.477	1.00	0.00
ATOM	2629	CG	ASN	S	140	24.007	80.096	40.771	1.00	0.00
ATOM	2630	OD1	ASN	S	140	24.985	79.565	41.293	1.00	0.00
ATOM	2631	ND2	ASN	S	140	23.422	81.216	41.215	1.00	0.00
ATOM	2632	OXT	ASN	S	140	20.428	80.125	39.950	1.00	0.00
ATOM	2633	H	ASN	S	140	23.073	77.229	38.378	1.00	0.00
ATOM	2634	1HD2	ASN	S	140	23.868	81.821	41.874	1.00	0.00
ATOM	2635	2HD2	ASN	S	140	22.509	81.413	40.845	1.00	0.00
END										

TABLE 6

REMARK	1 NMDA Receptor (NR1) Model of the NMDA Receptor Glycine Binding Site									
ATOM	1	N	SER	S	395	52.096	45.402	11.282	1.00	0.00
ATOM	2	CA	SER	S	395	51.059	44.524	10.749	1.00	0.00
ATOM	3	C	SER	S	395	49.828	44.724	11.604	1.00	0.00
ATOM	4	O	SER	S	395	49.946	45.475	12.575	1.00	0.00
ATOM	5	CB	SER	S	395	51.668	43.132	10.747	1.00	0.00
ATOM	6	OG	SER	S	395	52.996	43.307	10.216	1.00	0.00
ATOM	7	1HT	SER	S	395	52.924	44.795	11.465	1.00	0.00
ATOM	8	2HT	SER	S	395	51.707	46.796	12.163	1.00	0.00
ATOM	9	3HT	SER	S	395	52.293	46.139	10.585	1.00	0.00
ATOM	10	HG	SER	S	395	53.161	42.561	9.632	1.00	0.00
ATOM	11	N	THR	S	396	48.702	44.106	11.210	1.00	0.00
ATOM	12	CA	THR	S	396	47.368	44.532	11.644	1.00	0.00
ATOM	13	C	THR	S	396	46.429	43.338	11.572	1.00	0.00
ATOM	14	O	THR	S	396	46.822	42.312	11.015	1.00	0.00
ATOM	15	CB	THR	S	396	46.892	45.651	10.698	1.00	0.00
ATOM	16	OG1	THR	S	396	45.625	46.177	11.116	1.00	0.00
ATOM	17	CG2	THR	S	396	46.900	45.237	9.222	1.00	0.00
ATOM	18	H	THR	S	396	48.694	43.421	10.485	1.00	0.00
ATOM	19	HG1	THR	S	396	45.141	46.431	10.310	1.00	0.00
ATOM	20	N	ARG	S	397	45.213	43.502	12.120	1.00	0.00
ATOM	21	CA	ARG	S	397	44.211	42.491	11.797	1.00	0.00
ATOM	22	C	ARG	S	397	43.301	42.987	10.688	1.00	0.00
ATOM	23	O	ARG	S	397	42.575	43.958	10.849	1.00	0.00
ATOM	24	CB	ARG	S	397	43.397	42.062	13.031	1.00	0.00
ATOM	25	CG	ARG	S	397	42.550	40.808	12.754	1.00	0.00
ATOM	26	CD	ARG	S	397	41.771	40.231	13.945	1.00	0.00
ATOM	27	NE	ARG	S	397	40.711	41.119	14.418	1.00	0.00
ATOM	28	CZ	ARG	S	397	39.418	40.717	14.473	1.00	0.00
ATOM	29	NH1	ARG	S	397	38.531	41.482	15.085	1.00	0.00
ATOM	30	NH2	ARG	S	397	30.034	39.560	13.949	1.00	0.00
ATOM	31	H	ARG	S	397	44.955	44.412	12.455	1.00	0.00
ATOM	32	HE	ARG	S	397	40.947	42.009	14.834	1.00	0.00
ATOM	33	1HH1	ARG	S	397	37.566	41.219	15.196	1.00	0.00
ATOM	34	2HH1	ARG	S	397	38.846	42.353	15.469	1.00	0.00
ATOM	35	1HH2	ARG	S	397	38.076	39.285	13.993	1.00	0.00
ATOM	36	2HH2	ARG	S	397	39.694	38.954	13.515	1.00	0.00
ATOM	37	N	LEU	S	398	43.358	42.254	9.569	1.00	0.00
ATOM	38	CA	LEU	S	398	42.712	42.730	8.341	1.00	0.00
ATOM	39	C	LEU	S	398	41.231	43.095	8.425	1.00	0.00
ATOM	40	O	LEU	S	398	40.691	43.892	7.656	1.00	0.00
ATOM	41	CB	LEU	S	398	42.995	41.770	7.180	1.00	0.00
ATOM	42	CG	LEU	S	398	42.801	42.406	5.796	1.00	0.00
ATOM	43	CD1	LEU	S	398	43.679	43.646	5.598	1.00	0.00
ATOM	44	CD2	LEU	S	398	42.988	41.388	4.671	1.00	0.00
ATOM	45	H	LEU	S	398	43.930	41.439	9.600	1.00	0.00
ATOM	46	N	LYS	S	399	40.558	42.505	9.401	1.00	0.00
ATOM	47	CA	LYS	S	399	39.384	43.234	9.844	1.00	0.00
ATOM	48	C	LYS	S	399	39.607	43.623	11.276	1.00	0.00
ATOM	49	O	LYS	S	399	39.963	42.795	12.108	1.00	0.00
ATOM	50	CB	LYS	S	399	38.123	42.405	9.620	1.00	0.00
ATOM	51	CG	LYS	S	399	37.663	42.587	8.171	1.00	0.00
ATOM	52	CD	LYS	S	399	37.023	43.962	7.950	1.00	0.00
ATOM	53	CE	LYS	S	399	37.403	44.644	6.640	1.00	0.00
ATOM	54	NZ	LYS	S	399	38.612	45.444	6.858	1.00	0.00
ATOM	55	H	LYS	S	399	41.008	41.880	10.032	1.00	0.00
ATOM	56	1HZ	LYS	S	399	39.403	44.644	6.640	1.00	0.00
ATOM	57	2HZ	LYS	S	399	38.914	45.814	5.938	1.00	0.00
ATOM	58	3HZ	LYS	S	399	38.403	46.254	7.479	1.00	0.00

ATOM	59	N	ILE	S	400	39.444	44.923	11.522	1.00	0.00
ATOM	60	CA	ILE	S	400	39.510	45.362	12.908	1.00	0.00
ATOM	61	C	ILE	S	400	38.075	45.496	13.355	1.00	0.00
ATOM	62	O	ILE	S	400	37.251	46.077	12.639	1.00	0.00
ATOM	63	CB	ILE	S	400	40.252	46.693	13.008	1.00	0.00
ATOM	64	CG1	ILE	S	400	41.445	46.764	12.060	1.00	0.00
ATOM	65	CG2	ILE	S	400	40.697	46.955	14.447	1.00	0.00
ATOM	66	CD1	ILE	S	400	41.758	48.207	11.683	1.00	0.00
ATOM	67	H	ILE	S	400	39.096	45.519	10.800	1.00	0.00
ATOM	68	N	VAL	S	401	37.789	44.837	14.479	1.00	0.00
ATOM	69	CA	VAL	S	401	36.403	44.863	14.896	1.00	0.00
ATOM	70	C	VAL	S	401	36.189	45.858	15.987	1.00	0.00
ATOM	71	O	VAL	S	401	36.713	45.826	17.112	1.00	0.00
ATOM	72	CB	VAL	S	401	35.842	43.469	15.200	1.00	0.00
ATOM	73	CG1	VAL	S	401	34.470	43.486	15.885	1.00	0.00
ATOM	74	CG2	VAL	S	401	35.763	42.677	13.893	1.00	0.00
ATOM	75	H	VAL	S	401	38.508	44.507	15.090	1.00	0.00
ATOM	76	N	THR	S	402	35.401	46.820	15.544	1.00	0.00
ATOM	77	CA	THR	S	402	34.762	47.767	16.428	1.00	0.00
ATOM	78	C	THR	S	402	33.476	47.161	16.958	1.00	0.00
ATOM	79	O	THR	S	402	32.429	47.216	16.319	1.00	0.00
ATOM	80	CB	THR	S	402	34.556	49.017	15.573	1.00	0.00
ATOM	81	OG1	THR	S	402	35.855	49.585	15.313	1.00	0.00
ATOM	82	CG2	THR	S	402	33.567	50.053	16.118	1.00	0.00
ATOM	83	H	THR	S	402	35.015	46.683	14.631	1.00	0.00
ATOM	84	HG1	THR	S	402	35.666	50.435	14.894	1.00	0.00
ATOM	85	N	ILE	S	403	33.587	46.612	18.168	1.00	0.00
ATOM	86	CA	ILE	S	403	32.352	46.190	18.835	1.00	0.00
ATOM	87	C	ILE	S	403	31.468	47.372	19.282	1.00	0.00
ATOM	88	O	ILE	S	403	31.956	48.481	19.519	1.00	0.00
ATOM	89	CB	ILE	S	403	32.733	45.186	19.934	1.00	0.00
ATOM	90	CG1	ILE	S	403	31.539	44.463	20.552	1.00	0.00
ATOM	91	CG2	ILE	S	403	33.621	46.838	20.998	1.00	0.00
ATOM	92	CD1	ILE	S	403	31.919	43.134	21.200	1.00	0.00
ATOM	93	H	ILE	S	403	34.509	46.493	18.532	1.00	0.00
ATOM	94	N	HIS	S	404	30.132	47.151	19.294	1.00	0.00
ATOM	95	CA	HIS	S	404	29.218	48.307	19.414	1.00	0.00
ATOM	96	C	HIS	S	404	27.998	48.146	20.329	1.00	0.00
ATOM	97	O	HIS	S	404	27.397	47.076	20.416	1.00	0.00
ATOM	98	CB	HIS	S	404	28.783	48.802	18.028	1.00	0.00
ATOM	99	CG	HIS	S	404	28.269	50.226	18.105	1.00	0.00
ATOM	100	ND1	HIS	S	404	29.076	51.289	18.028	1.00	0.00
ATOM	101	CD2	HIS	S	404	26.961	50.687	18.277	1.00	0.00
ATOM	102	CE1	HIS	S	404	28.310	52.416	18.154	1.00	0.00
ATOM	103	NE2	HIS	S	404	27.000	52.043	18.307	1.00	0.00
ATOM	104	H	HIS	S	404	29.790	46.223	19.131	1.00	0.00
ATOM	105	HD1	HIS	S	404	30.039	51.275	17.862	1.00	0.00
ATOM	106	N	GLN	S	405	27.691	49.263	21.030	1.00	0.00
ATOM	107	CA	GLN	S	405	26.571	49.385	21.973	1.00	0.00
ATOM	108	C	GLN	S	405	25.195	49.355	21.296	1.00	0.00
ATOM	109	O	GLN	S	405	25.079	49.202	20.078	1.00	0.00
ATOM	110	CB	GLN	S	405	26.818	50.677	22.783	1.00	0.00
ATOM	111	CG	GLN	S	405	26.062	51.874	24.106	1.00	0.00
ATOM	112	CD	GLN	S	405	26.529	52.137	24.792	1.00	0.00
ATOM	113	OE1	GLN	S	405	27.631	50.203	25.340	1.00	0.00
ATOM	114	NE2	GLN	S	405	25.655	53.154	24.741	1.00	0.00
ATOM	115	H	GLN	S	405	28.133	50.120	20.760	1.00	0.00
ATOM	116	1HE2	GLN	S	405	26.863	54.087	25.037	1.00	0.00
ATOM	117	2HE2	GLN	S	405	24.735	52.963	24.389	1.00	0.00
ATOM	118	N	GLU	S	406	24.133	49.462	22.121	1.00	0.00
ATOM	119	CA	GLU	S	406	22.864	50.027	21.635	1.00	0.00
ATOM	120	C	GLU	S	406	22.374	51.203	22.497	1.00	0.00

ATOM	121	O	GLU	S	406	22.385	52.362	22.071	1.00	0.00
ATOM	122	CB	GLU	S	406	21.813	48.912	21.402	1.00	0.00
ATOM	123	CG	GLU	S	406	20.436	49.288	20.825	1.00	0.00
ATOM	124	CD	GLU	S	406	19.628	50.208	21.736	1.00	0.00
ATOM	125	OE1	GLU	S	406	19.540	51.404	21.471	1.00	0.00
ATOM	126	OE2	GLU	S	406	19.090	49.717	22.725	1.00	0.00
ATOM	127	H	GLU	S	406	24.221	49.248	23.091	1.00	0.00
ATOM	128	N	PRO	S	407	21.973	50.922	23.794	1.00	0.00
ATOM	129	CA	PRO	S	407	21.166	51.899	24.545	1.00	0.00
ATOM	130	C	PRO	S	407	21.669	53.318	24.509	1.00	0.00
ATOM	131	O	PRO	S	407	22.894	53.552	24.589	1.00	0.00
ATOM	132	CB	PRO	S	407	21.112	51.327	25.962	1.00	0.00
ATOM	133	CG	PRO	S	407	21.173	49.822	25.751	1.00	0.00
ATOM	134	CD	PRO	S	407	22.159	49.708	24.598	1.00	0.00
ATOM	135	N	PHE	S	408	20.670	54.197	24.337	1.00	0.00
ATOM	136	CA	PHE	S	408	20.865	55.632	24.176	1.00	0.00
ATOM	137	C	PHE	S	408	21.591	56.030	22.902	1.00	0.00
ATOM	138	O	PHE	S	408	21.002	56.632	22.003	1.00	0.00
ATOM	139	CB	PHE	S	408	21.440	56.250	25.460	1.00	0.00
ATOM	140	CG	PHE	S	408	20.345	56.433	26.493	1.00	0.00
ATOM	141	CD1	PHE	S	408	19.702	55.311	27.064	1.00	0.00
ATOM	142	CD2	PHE	S	408	19.977	57.743	26.866	1.00	0.00
ATOM	143	CE1	PHE	S	408	18.674	55.503	28.007	1.00	0.00
ATOM	144	CE2	PHE	S	408	18.953	57.939	27.812	1.00	0.00
ATOM	145	CZ	PHE	S	408	18.309	56.816	28.371	1.00	0.00
ATOM	146	H	PHE	S	408	19.764	53.780	24.328	1.00	0.00
ATOM	147	N	VAL	S	409	22.877	55.654	22.822	1.00	0.00
ATOM	148	CA	VAL	S	409	23.742	55.967	21.672	1.00	0.00
ATOM	149	C	VAL	S	409	23.322	55.384	20.319	1.00	0.00
ATOM	150	O	VAL	S	409	23.670	54.275	19.914	1.00	0.00
ATOM	151	CB	VAL	S	409	25.197	55.593	22.004	1.00	0.00
ATOM	152	CG1	VAL	S	409	26.165	55.931	20.866	1.00	0.00
ATOM	153	CG2	VAL	S	409	25.635	56.250	23.316	1.00	0.00
ATOM	154	H	VAL	S	409	23.175	55.148	23.631	1.00	0.00
ATOM	155	N	TYR	S	410	22.560	56.205	19.600	1.00	0.00
ATOM	156	CA	TYR	S	410	22.214	55.943	18.199	1.00	0.00
ATOM	157	C	TYR	S	410	22.277	57.294	17.529	1.00	0.00
ATOM	158	O	TYR	S	410	22.302	58.297	18.244	1.00	0.00
ATOM	159	CB	TYR	S	410	20.760	55.476	18.084	1.00	0.00
ATOM	160	CG	TYR	S	410	20.575	53.989	17.877	1.00	0.00
ATOM	161	CD1	TYR	S	410	21.150	53.063	18.767	1.00	0.00
ATOM	162	CD2	TYR	S	410	19.763	53.572	16.804	1.00	0.00
ATOM	163	CE1	TYR	S	410	20.817	51.708	18.635	1.00	0.00
ATOM	164	CE2	TYR	S	410	19.416	52.215	16.682	1.00	0.00
ATOM	165	CZ	TYR	S	410	19.905	51.304	17.637	1.00	0.00
ATOM	166	OH	TYR	S	410	19.462	49.987	17.626	1.00	0.00
ATOM	167	H	TYR	S	410	22.257	57.063	20.012	1.00	0.00
ATOM	168	HH	TYR	S	410	19.657	49.609	18.483	1.00	0.00
ATOM	169	N	VAL	S	411	22.218	57.306	16.181	1.00	0.00
ATOM	170	CA	VAL	S	411	21.470	58.411	15.562	1.00	0.00
ATOM	171	C	VAL	S	411	20.569	57.914	14.427	1.00	0.00
ATOM	172	O	VAL	S	411	20.352	58.576	13.412	1.00	0.00
ATOM	173	CB	VAL	S	411	22.340	59.611	15.092	1.00	0.00
ATOM	174	CG1	VAL	S	411	21.500	60.892	15.035	1.00	0.00
ATOM	175	CG2	VAL	S	411	23.606	59.870	15.915	1.00	0.00
ATOM	176	H	VAL	S	411	22.522	56.508	15.660	1.00	0.00
ATOM	177	N	LYS	S	412	20.080	56.662	14.624	1.00	0.00
ATOM	178	CA	LYS	S	412	19.066	56.134	13.700	1.00	0.00
ATOM	179	C	LYS	S	412	17.857	55.532	14.394	1.00	0.00
ATOM	180	O	LYS	S	412	17.856	54.364	14.780	1.00	0.00
ATOM	181	CB	LYS	S	412	19.621	55.054	12.757	1.00	0.00
ATOM	182	CG	LYS	S	412	20.791	55.509	11.895	1.00	0.00

ATOM	183	CD	LYS	S	412	20.442	56.701	11.019	1.00	0.00
ATOM	184	CE	LYS	S	412	21.665	57.550	10.696	1.00	0.00
ATOM	185	NZ	LYS	S	412	21.298	58.956	10.883	1.00	0.00
ATOM	186	H	LYS	S	412	20.306	56.130	15.434	1.00	0.00
ATOM	187	1HZ	LYS	S	412	20.602	59.227	10.154	1.00	0.00
ATOM	188	2HZ	LYS	S	412	20.890	59.098	11.832	1.00	0.00
ATOM	189	3HZ	LYS	S	412	22.129	59.568	10.768	1.00	0.00
ATOM	190	N	PRO	S	413	16.789	56.336	14.531	1.00	0.00
ATOM	191	CA	PRO	S	413	15.540	55.722	14.988	1.00	0.00
ATOM	192	C	PRO	S	413	15.048	54.597	14.076	1.00	0.00
ATOM	193	O	PRO	S	413	15.549	54.355	12.980	1.00	0.00
ATOM	194	CB	PRO	S	413	14.598	56.929	15.105	1.00	0.00
ATOM	195	CG	PRO	S	413	15.188	58.026	14.217	1.00	0.00
ATOM	196	CD	PRO	S	413	16.690	58.767	14.266	1.00	0.00
ATOM	197	N	THR	S	414	14.058	53.894	14.614	1.00	0.00
ATOM	198	CA	THR	S	414	13.363	52.857	13.860	1.00	0.00
ATOM	199	C	THR	S	414	12.258	53.461	12.981	1.00	0.00
ATOM	200	O	THR	S	414	11.775	54.563	13.232	1.00	0.00
ATOM	201	CB	THR	S	414	12.872	52.874	14.942	1.00	0.00
ATOM	202	OG1	THR	S	414	14.006	51.198	15.514	1.00	0.00
ATOM	203	CG2	THR	S	414	11.803	50.863	14.529	1.00	0.00
ATOM	204	H	THR	S	414	13.713	54.181	15.503	1.00	0.00
ATOM	205	HG1	THR	S	414	14.458	50.787	14.783	1.00	0.00
ATOM	206	N	LEU	S	415	11.870	52.705	11.919	1.00	0.00
ATOM	207	CA	LEU	S	415	10.645	52.927	11.117	1.00	0.00
ATOM	208	C	LEU	S	415	10.671	52.092	9.855	1.00	0.00
ATOM	209	O	LEU	S	415	11.5254	52.321	9.002	1.00	0.00
ATOM	210	CB	LEU	S	415	10.426	54.382	10.659	1.00	0.00
ATOM	211	CG	LEU	S	415	9.083	54.658	9.975	1.00	0.00
ATOM	212	CD1	LEU	S	415	7.896	54.403	10.907	1.00	0.00
ATOM	213	CD2	LEU	S	415	9.047	56.058	9.362	1.00	0.00
ATOM	214	H	LEU	S	415	12.451	51.915	11.704	1.00	0.00
ATOM	215	N	SER	S	416	9.736	51.143	9.773	1.00	0.00
ATOM	216	CA	SER	S	416	9.682	50.278	8.595	1.00	0.00
ATOM	217	C	SER	S	416	9.584	51.018	7.269	1.00	0.00
ATOM	218	O	SER	S	416	8.576	51.657	6.968	1.00	0.00
ATOM	219	CB	SER	S	416	8.497	49.322	8.734	1.00	0.00
ATOM	220	OG	SER	S	416	7.999	49.337	10.085	1.00	0.00
ATOM	221	H	SER	S	416	9.075	50.986	10.500	1.00	0.00
ATOM	222	HG	SER	S	416	8.319	48.530	10.477	1.00	0.00
ATOM	223	N	ASP	S	417	10.669	50.915	6.495	1.00	0.00
ATOM	224	CA	ASP	S	417	10.643	51.523	5.164	1.00	0.00
ATOM	225	C	ASP	S	417	11.648	50.824	4.281	1.00	0.00
ATOM	226	O	ASP	S	417	12.724	50.435	4.725	1.00	0.00
ATOM	227	CB	ASP	S	417	10.895	53.050	5.235	1.00	0.00
ATOM	228	CG	ASP	S	417	10.978	53.757	3.878	1.00	0.00
ATOM	229	OD1	ASP	S	417	11.611	54.802	3.760	1.00	0.00
ATOM	230	OD2	ASP	S	417	10.406	53.299	2.901	1.00	0.00
ATOM	231	H	ASP	S	417	11.369	50.242	6.752	1.00	0.00
ATOM	232	N	GLY	S	418	11.247	50.700	3.008	1.00	0.00
ATOM	233	CA	GLY	S	418	12.141	50.155	1.996	1.00	0.00
ATOM	234	C	GLY	S	418	12.789	51.216	1.114	1.00	0.00
ATOM	235	O	GLY	S	418	12.346	51.487	0.002	1.00	0.00
ATOM	236	H	GLY	S	418	10.404	51.175	2.754	1.00	0.00
ATOM	237	N	THR	S	419	13.852	51.825	1.653	1.00	0.00
ATOM	238	CA	THR	S	419	14.633	52.758	0.830	1.00	0.00
ATOM	239	C	THR	S	419	16.137	52.803	1.175	1.00	0.00
ATOM	240	O	THR	S	419	16.692	53.865	1.447	1.00	0.00
ATOM	241	CB	THR	S	419	14.020	54.177	0.889	1.00	0.00
ATOM	242	OG1	THR	S	419	12.585	54.172	1.074	1.00	0.00
ATOM	243	CG2	THR	S	419	14.377	54.962	-0.376	1.00	0.00
ATOM	244	H	THR	S	419	14.133	51.449	2.533	1.00	0.00

ATOM	245	HG1	THR	S	419	12.416	53.567	1.800	1.00	0.00
ATOM	246	N	CYS	S	420	16.751	51.596	1.245	1.00	0.00
ATOM	247	CA	CYS	S	420	17.931	51.309	2.101	1.00	0.00
ATOM	248	C	CYS	S	420	17.575	51.314	3.575	1.00	0.00
ATOM	249	O	CYS	S	420	18.385	51.101	4.475	1.00	0.00
ATOM	250	CB	CYS	S	420	19.139	52.246	2.015	1.00	0.00
ATOM	251	SG	CYS	S	420	19.996	52.479	0.436	1.00	0.00
ATOM	252	H	CYS	S	420	16.219	50.778	1.018	1.00	0.00
ATOM	253	N	LYS	S	421	16.301	51.651	3.765	1.00	0.00
ATOM	254	CA	LYS	S	421	15.770	52.085	5.038	1.00	0.00
ATOM	255	C	LYS	S	421	15.290	50.911	5.848	1.00	0.00
ATOM	256	O	LYS	S	421	14.875	51.081	6.993	1.00	0.00
ATOM	257	CB	LYS	S	421	14.625	53.059	4.796	1.00	0.00
ATOM	258	CG	LYS	S	421	14.910	54.493	5.226	1.00	0.00
ATOM	259	CD	LYS	S	421	13.824	55.099	6.128	1.00	0.00
ATOM	260	CE	LYS	S	421	13.713	54.545	7.559	1.00	0.00
ATOM	261	NZ	LYS	S	421	13.349	53.126	7.608	1.00	0.00
ATOM	262	H	LYS	S	421	15.721	51.239	3.072	1.00	0.00
ATOM	263	1HZ	LYS	S	421	14.078	52.502	7.219	1.00	0.00
ATOM	264	2HZ	LYS	S	421	13.218	52.821	8.596	1.00	0.00
ATOM	265	3HZ	LYS	S	421	12.440	52.948	7.143	1.00	0.00
ATOM	266	N	GLU	S	422	15.423	49.741	5.199	1.00	0.00
ATOM	267	CA	GLU	S	422	15.427	48.435	5.831	1.00	0.00
ATOM	268	C	GLU	S	422	16.498	48.409	6.903	1.00	0.00
ATOM	269	O	GLU	S	422	17.058	49.433	7.302	1.00	0.00
ATOM	270	CB	GLU	S	422	15.728	47.341	4.787	1.00	0.00
ATOM	271	CG	GLU	S	422	15.036	47.402	3.415	1.00	0.00
ATOM	272	CD	GLU	S	422	15.715	48.421	2.512	1.00	0.00
ATOM	273	OE1	GLU	S	422	16.902	48.307	2.251	1.00	0.00
ATOM	274	OE2	GLU	S	422	15.067	49.359	2.079	1.00	0.00
ATOM	275	H	GLU	S	422	15.655	49.758	4.231	1.00	0.00
ATOM	276	N	GLU	S	423	16.870	47.201	7.327	1.00	0.00
ATOM	277	CA	GLU	S	423	18.017	47.245	8.226	1.00	0.00
ATOM	278	C	GLU	S	423	19.397	47.456	7.596	1.00	0.00
ATOM	279	O	GLU	S	423	20.422	46.949	8.066	1.00	0.00
ATOM	280	CB	GLU	S	423	17.924	46.085	9.202	1.00	0.00
ATOM	281	CG	GLU	S	423	16.686	46.302	10.084	1.00	0.00
ATOM	282	CD	GLU	S	423	16.050	44.979	10.448	1.00	0.00
ATOM	283	OE1	GLU	S	423	14.842	44.925	10.644	1.00	0.00
ATOM	284	OE2	GLU	S	423	16.751	43.980	10.511	1.00	0.00
ATOM	285	H	GLU	S	423	16.440	46.353	7.014	1.00	0.00
ATOM	286	N	PHE	S	424	19.410	48.313	6.556	1.00	0.00
ATOM	287	CA	PHE	S	424	20.644	49.002	6.180	1.00	0.00
ATOM	288	C	PHE	S	424	20.620	50.448	6.663	1.00	0.00
ATOM	289	O	PHE	S	424	20.782	51.418	5.920	1.00	0.00
ATOM	290	CB	PHE	S	424	20.874	48.888	4.669	1.00	0.00
ATOM	291	CG	PHE	S	424	20.787	47.435	4.254	1.00	0.00
ATOM	292	CD1	PHE	S	424	19.642	46.987	3.559	1.00	0.00
ATOM	293	CD2	PHE	S	424	21.836	46.547	4.582	1.00	0.00
ATOM	294	CE1	PHE	S	424	19.532	45.628	3.207	1.00	0.00
ATOM	295	CE2	PHE	S	424	21.728	45.188	4.230	1.00	0.00
ATOM	296	CZ	PHE	S	424	20.573	44.741	3.554	1.00	0.00
ATOM	297	H	PHE	S	424	18.552	48.618	6.144	1.00	0.00
ATOM	298	N	THR	S	425	20.353	50.501	7.982	1.00	0.00
ATOM	299	CA	THR	S	425	20.344	51.707	8.809	1.00	0.00
ATOM	300	C	THR	S	425	19.357	52.795	8.354	1.00	0.00
ATOM	301	O	THR	S	425	18.267	52.508	7.845	1.00	0.00
ATOM	302	CB	THR	S	425	21.818	52.127	9.141	1.00	0.00
ATOM	303	OG1	THR	S	425	21.868	53.076	10.220	1.00	0.00
ATOM	304	CG2	THR	S	425	22.700	52.620	7.988	1.00	0.00
ATOM	305	H	THR	S	425	20.169	49.642	8.438	1.00	0.00
ATOM	306	HG1	THR	S	425	22.740	53.015	10.620	1.00	0.00

ATOM	307	N	VAL	S	426	19.765	54.075	8.537	1.00	0.00
ATOM	308	CA	VAL	S	426	19.192	55.285	7.915	1.00	0.00
ATOM	309	C	VAL	S	426	17.720	55.627	8.135	1.00	0.00
ATOM	310	O	VAL	S	426	16.800	55.153	7.477	1.00	0.00
ATOM	311	CB	VAL	S	426	19.619	55.464	6.439	1.00	0.00
ATOM	312	CG1	VAL	S	426	21.138	55.608	6.353	1.00	0.00
ATOM	313	CG2	VAL	S	426	19.093	54.409	5.459	1.00	0.00
ATOM	314	H	VAL	S	426	20.528	54.160	9.182	1.00	0.00
ATOM	315	N	ASN	S	427	17.481	56.489	9.132	1.00	0.00
ATOM	316	CA	ASN	S	427	16.081	56.864	9.312	1.00	0.00
ATOM	317	C	ASN	S	427	15.745	58.181	8.660	1.00	0.00
ATOM	318	O	ASN	S	427	15.441	59.194	9.279	1.00	0.00
ATOM	319	CB	ASN	S	427	15.647	56.835	10.771	1.00	0.00
ATOM	320	CG	ASN	S	427	14.140	56.648	10.852	1.00	0.00
ATOM	321	OD1	ASN	S	427	13.328	57.557	10.717	1.00	0.00
ATOM	322	ND2	ASN	S	427	13.775	55.404	11.120	1.00	0.00
ATOM	323	H	ASN	S	427	18.205	56.991	9.601	1.00	0.00
ATOM	324	1HD2	ASN	S	427	12.828	55.112	11.193	1.00	0.00
ATOM	325	2HD2	ASN	S	427	14.474	54.721	11.359	1.00	0.00
ATOM	326	N	GLY	S	428	15.832	58.118	7.324	1.00	0.00
ATOM	327	CA	GLY	S	428	15.545	59.339	6.572	1.00	0.00
ATOM	328	C	GLY	S	428	16.706	59.866	5.745	1.00	0.00
ATOM	329	O	GLY	S	428	16.518	60.393	4.652	1.00	0.00
ATOM	330	H	GLY	S	428	16.117	57.251	6.911	1.00	0.00
ATOM	331	N	ASP	S	429	17.901	59.671	6.303	1.00	0.00
ATOM	332	CA	ASP	S	429	19.165	60.117	5.707	1.00	0.00
ATOM	333	C	ASP	S	429	19.322	60.195	4.169	1.00	0.00
ATOM	334	O	ASP	S	429	19.755	61.223	3.652	1.00	0.00
ATOM	335	CB	ASP	S	429	20.340	59.381	6.391	1.00	0.00
ATOM	336	CG	ASP	S	429	20.179	59.330	7.912	1.00	0.00
ATOM	337	OD1	ASP	S	429	20.760	60.141	8.610	1.00	0.00
ATOM	338	OD2	ASP	S	429	19.474	58.476	8.432	1.00	0.00
ATOM	339	H	ASP	S	429	17.940	59.272	7.221	1.00	0.00
ATOM	340	N	PRO	S	430	18.977	59.108	3.407	1.00	0.00
ATOM	341	CA	PRO	S	430	19.189	59.190	1.954	1.00	0.00
ATOM	342	C	PRO	S	430	18.112	59.916	1.142	1.00	0.00
ATOM	343	O	PRO	S	430	18.195	59.941	-0.089	1.00	0.00
ATOM	344	CB	PRO	S	430	19.292	57.713	1.569	1.00	0.00
ATOM	345	CG	PRO	S	430	18.302	57.020	2.500	1.00	0.00
ATOM	346	CD	PRO	S	430	18.502	57.780	3.806	1.00	0.00
ATOM	347	N	VAL	S	431	17.106	60.464	1.854	1.00	0.00
ATOM	348	CA	VAL	S	431	15.979	61.241	1.309	1.00	0.00
ATOM	349	C	VAL	S	431	15.178	60.628	0.153	1.00	0.00
ATOM	350	O	VAL	S	431	14.934	61.240	-0.887	1.00	0.00
ATOM	351	CB	VAL	S	431	16.395	62.704	1.029	1.00	0.00
ATOM	352	CG1	VAL	S	431	15.181	63.641	0.982	1.00	0.00
ATOM	353	CG2	VAL	S	431	17.394	63.223	2.070	1.00	0.00
ATOM	354	H	VAL	S	431	17.215	60.463	2.847	1.00	0.00
ATOM	355	N	LYS	S	432	14.778	59.368	0.422	1.00	0.00
ATOM	356	CA	LYS	S	432	13.988	58.604	-0.554	1.00	0.00
ATOM	357	C	LYS	S	432	14.414	58.683	-2.007	1.00	0.00
ATOM	358	O	LYS	S	432	13.655	58.942	-2.945	1.00	0.00
ATOM	359	CB	LYS	S	432	12.488	58.841	-0.398	1.00	0.00
ATOM	360	CG	LYS	S	432	11.961	58.007	0.764	1.00	0.00
ATOM	361	CD	LYS	S	432	10.439	57.890	0.750	1.00	0.00
ATOM	362	CE	LYS	S	432	9.951	56.912	1.827	1.00	0.00
ATOM	363	NZ	LYS	S	432	10.465	55.565	1.558	1.00	0.00
ATOM	364	H	LYS	S	432	14.920	59.025	1.348	1.00	0.00
ATOM	365	1HZ	LYS	S	432	10.012	55.053	0.786	1.00	0.00
ATOM	366	2HZ	LYS	S	432	11.494	55.526	1.420	1.00	0.00
ATOM	367	3HZ	LYS	S	432	10.322	55.004	2.422	1.00	0.00
ATOM	368	N	LYS	S	433	15.714	58.424	-2.125	1.00	0.00

ATOM	369	CA	LYS	S	433	16.468	58.425	-3.362	1.00	0.00
ATOM	370	C	LYS	S	433	17.429	57.278	-3.157	1.00	0.00
ATOM	371	O	LYS	S	433	18.012	57.174	-2.079	1.00	0.00
ATOM	372	CB	LYS	S	433	17.208	59.766	-3.408	1.00	0.00
ATOM	373	CG	LYS	S	433	18.466	59.883	-4.277	1.00	0.00
ATOM	374	CD	LYS	S	433	19.546	60.703	-3.552	1.00	0.00
ATOM	375	CE	LYS	S	433	20.574	59.895	-2.735	1.00	0.00
ATOM	376	NZ	LYS	S	433	19.939	58.838	-1.940	1.00	0.00
ATOM	377	H	LYS	S	433	16.196	58.262	-1.270	1.00	0.00
ATOM	378	1HZ	LYS	S	433	19.167	59.202	-1.344	1.00	0.00
ATOM	379	2HZ	LYS	S	433	19.536	58.130	-2.591	1.00	0.00
ATOM	380	3HZ	LYS	S	433	20.624	58.294	-1.380	1.00	0.00
ATOM	381	N	VAL	S	434	17.596	56.438	-4.191	1.00	0.00
ATOM	382	CA	VAL	S	434	18.563	55.338	-4.051	1.00	0.00
ATOM	383	C	VAL	S	434	19.957	55.798	-3.629	1.00	0.00
ATOM	384	O	VAL	S	434	20.252	56.988	-3.706	1.00	0.00
ATOM	385	CB	VAL	S	434	18.627	54.505	-5.339	1.00	0.00
ATOM	386	CG1	VAL	S	434	17.290	53.803	-5.586	1.00	0.00
ATOM	387	CG2	VAL	S	434	19.080	55.335	-6.546	1.00	0.00
ATOM	388	H	VAL	S	434	17.088	56.581	-5.404	1.00	0.00
ATOM	389	N	ILE	S	435	20.768	54.823	-3.174	1.00	0.00
ATOM	390	CA	ILE	S	435	22.084	55.095	-2.574	1.00	0.00
ATOM	391	C	ILE	S	435	22.014	55.733	-1.182	1.00	0.00
ATOM	392	O	ILE	S	435	21.319	56.722	-0.936	1.00	0.00
ATOM	393	CB	ILE	S	435	23.006	55.869	-3.548	1.00	0.00
ATOM	394	CG1	ILE	S	435	23.113	55.120	-4.881	1.00	0.00
ATOM	395	CG2	ILE	S	435	24.406	56.088	-2.968	1.00	0.00
ATOM	396	CD1	ILE	S	435	23.832	55.926	-5.965	1.00	0.00
ATOM	397	H	ILE	S	435	20.448	53.879	-3.220	1.00	0.00
ATOM	398	N	CYS	S	436	22.756	55.067	-0.275	1.00	0.00
ATOM	399	CA	CYS	S	436	22.787	55.381	1.163	1.00	0.00
ATOM	400	C	CYS	S	436	24.204	55.415	1.748	1.00	0.00
ATOM	401	O	CYS	S	436	24.475	55.161	2.927	1.00	0.00
ATOM	402	CB	CYS	S	436	21.904	54.368	1.902	1.00	0.00
ATOM	403	SG	CYS	S	436	21.915	52.736	1.091	1.00	0.00
ATOM	404	H	CYS	S	436	23.269	54.268	-0.896	1.00	0.00
ATOM	405	N	THR	S	437	25.134	55.710	0.828	1.00	0.00
ATOM	406	CA	THR	S	437	26.520	55.830	1.262	1.00	0.00
ATOM	407	C	THR	S	437	26.738	57.171	1.935	1.00	0.00
ATOM	408	O	THR	S	437	26.437	58.204	1.340	1.00	0.00
ATOM	409	CB	THR	S	437	27.401	55.681	0.023	1.00	0.00
ATOM	410	OG1	THR	S	437	26.904	56.531	-1.030	1.00	0.00
ATOM	411	CG2	THR	S	437	27.440	54.227	-0.454	1.00	0.00
ATOM	412	H	THR	S	437	24.910	55.969	-0.109	1.00	0.00
ATOM	413	HG1	THR	S	437	27.186	57.409	-0.758	1.00	0.00
ATOM	414	N	GLY	S	438	27.240	57.094	3.170	1.00	0.00
ATOM	415	CA	GLY	S	438	27.493	58.326	3.910	1.00	0.00
ATOM	416	C	GLY	S	438	27.728	57.984	5.363	1.00	0.00
ATOM	417	O	GLY	S	438	28.852	57.682	5.773	1.00	0.00
ATOM	418	H	GLY	S	438	27.398	56.203	3.595	1.00	0.00
ATOM	419	N	PRO	S	439	26.582	57.976	6.097	1.00	0.00
ATOM	420	CA	PRO	S	439	26.538	57.446	7.466	1.00	0.00
ATOM	421	C	PRO	S	439	27.436	56.236	7.679	1.00	0.00
ATOM	422	O	PRO	S	439	27.375	55.253	6.935	1.00	0.00
ATOM	423	CB	PRO	S	439	25.043	57.146	7.614	1.00	0.00
ATOM	424	CG	PRO	S	439	24.365	58.283	6.857	1.00	0.00
ATOM	425	CD	PRO	S	439	25.275	58.452	5.647	1.00	0.00
ATOM	426	N	ASN	S	440	28.315	56.338	8.663	1.00	0.00
ATOM	427	CA	ASN	S	440	29.293	55.263	8.781	1.00	0.00
ATOM	428	C	ASN	S	440	28.921	54.239	9.817	1.00	0.00
ATOM	429	O	ASN	S	440	29.223	54.368	11.000	1.00	0.00
ATOM	430	CB	ASN	S	440	30.695	55.801	9.037	1.00	0.00

ATOM	431	CG	ASN	S	440	31.726	54.732	8.723	1.00	0.00
ATOM	432	OD1	ASN	S	440	31.882	54.249	7.602	1.00	0.00
ATOM	433	ND2	ASN	S	440	32.475	54.381	9.762	1.00	0.00
ATOM	434	H	ASN	S	440	28.321	57.134	9.275	1.00	0.00
ATOM	435	1HD2	ASN	S	440	32.113	54.732	10.634	1.00	0.00
ATOM	436	2HD2	ASN	S	440	33.312	53.835	9.685	1.00	0.00
ATOM	437	N	ASP	S	441	28.243	53.209	9.296	1.00	0.00
ATOM	438	CA	ASP	S	441	27.613	52.210	10.158	1.00	0.00
ATOM	439	C	ASP	S	441	28.489	51.533	11.213	1.00	0.00
ATOM	440	O	ASP	S	441	29.727	51.544	11.199	1.00	0.00
ATOM	441	CB	ASP	S	441	26.874	51.203	9.260	1.00	0.00
ATOM	442	CG	ASP	S	441	25.926	50.355	10.084	1.00	0.00
ATOM	443	OD1	ASP	S	441	24.823	50.798	10.368	1.00	0.00
ATOM	444	OD2	ASP	S	441	26.324	49.273	10.492	1.00	0.00
ATOM	445	H	ASP	S	441	27.919	53.289	8.354	1.00	0.00
ATOM	446	N	THR	S	442	27.790	50.907	12.174	1.00	0.00
ATOM	447	CA	THR	S	442	28.520	50.437	13.332	1.00	0.00
ATOM	448	C	THR	S	442	28.058	49.111	13.953	1.00	0.00
ATOM	449	O	THR	S	442	28.868	48.363	14.488	1.00	0.00
ATOM	450	CB	THR	S	442	28.559	51.628	14.291	1.00	0.00
ATOM	451	OG1	THR	S	442	29.603	51.528	15.271	1.00	0.00
ATOM	452	CG2	THR	S	442	27.199	51.938	14.896	1.00	0.00
ATOM	453	H	THR	S	442	26.792	50.817	12.125	1.00	0.00
ATOM	454	HG1	THR	S	442	29.628	60.607	15.537	1.00	0.00
ATOM	455	N	SER	S	443	26.754	48.820	13.868	1.00	0.00
ATOM	456	CA	SER	S	443	26.224	47.609	14.514	1.00	0.00
ATOM	457	C	SER	S	443	24.941	47.097	13.874	1.00	0.00
ATOM	458	O	SER	S	443	23.839	47.599	14.115	1.00	0.00
ATOM	459	CB	SER	S	443	25.966	47.837	16.017	1.00	0.00
ATOM	460	OG	SER	S	443	25.936	46.627	16.817	1.00	0.00
ATOM	461	H	SER	S	443	26.138	49.443	13.832	1.00	0.00
ATOM	462	HG	SER	S	443	25.700	45.922	16.209	1.00	0.00
ATOM	463	N	PRO	S	444	25.103	46.024	13.076	1.00	0.00
ATOM	464	CA	PRO	S	444	23.943	45.248	12.631	1.00	0.00
ATOM	465	C	PRO	S	444	23.310	44.412	13.742	1.00	0.00
ATOM	466	O	PRO	S	444	23.596	43.223	13.913	1.00	0.00
ATOM	467	CB	PRO	S	444	24.542	44.413	11.494	1.00	0.00
ATOM	468	CG	PRO	S	444	26.003	44.194	11.876	1.00	0.00
ATOM	469	CD	PRO	S	444	26.367	45.496	12.576	1.00	0.00
ATOM	470	N	GLY	S	445	22.433	45.108	14.488	1.00	0.00
ATOM	471	CA	GLY	S	445	21.400	44.330	15.159	1.00	0.00
ATOM	472	C	GLY	S	445	20.259	44.142	14.184	1.00	0.00
ATOM	473	O	GLY	S	445	20.207	44.828	13.167	1.00	0.00
ATOM	474	H	GLY	S	445	22.293	46.074	14.285	1.00	0.00
ATOM	475	N	SER	S	446	19.367	43.193	14.525	1.00	0.00
ATOM	476	CA	SER	S	446	18.306	42.770	13.600	1.00	0.00
ATOM	477	C	SER	S	446	18.764	42.361	12.199	1.00	0.00
ATOM	478	O	SER	S	446	19.312	43.121	11.396	1.00	0.00
ATOM	479	CB	SER	S	446	17.136	43.761	13.588	1.00	0.00
ATOM	480	OG	SER	S	446	16.580	43.870	14.909	1.00	0.00
ATOM	481	H	SER	S	446	19.427	42.763	15.424	1.00	0.00
ATOM	482	HG	SER	S	446	17.085	44.577	14.294	1.00	0.00
ATOM	483	N	PRO	S	447	18.585	41.038	11.954	1.00	0.00
ATOM	484	CA	PRO	S	447	19.044	40.473	10.684	1.00	0.00
ATOM	485	C	PRO	S	447	18.175	40.784	9.469	1.00	0.00
ATOM	486	O	PRO	S	447	17.544	39.906	8.891	1.00	0.00
ATOM	487	CB	PRO	S	447	19.119	38.978	11.018	1.00	0.00
ATOM	488	CG	PRO	S	447	18.005	38.753	12.042	1.00	0.00
ATOM	489	CD	PRO	S	447	18.035	40.036	12.862	1.00	0.00
ATOM	490	N	ARG	S	448	18.238	42.058	9.058	1.00	0.00
ATOM	491	CA	ARG	S	448	17.977	42.508	7.690	1.00	0.00
ATOM	492	C	ARG	S	448	16.543	42.347	7.203	1.00	0.00

ATOM	493	O	ARG	S	448	16.254	41.672	6.219	1.00	0.00
ATOM	494	CB	ARG	S	448	18.986	41.918	6.682	1.00	0.00
ATOM	495	CG	ARG	S	448	20.442	41.649	7.123	1.00	0.00
ATOM	496	CD	ARG	S	448	21.313	42.831	7.578	1.00	0.00
ATOM	497	NE	ARG	S	448	21.001	43.283	8.937	1.00	0.00
ATOM	498	CZ	ARG	S	448	21.531	44.422	9.424	1.00	0.00
ATOM	499	NH1	ARG	S	448	21.097	44.910	10.584	1.00	0.00
ATOM	500	NH2	ARG	S	448	22.481	45.064	8.756	1.00	0.00
ATOM	501	H	ARG	S	448	18.359	42.706	9.806	1.00	0.00
ATOM	502	HE	ARG	S	448	20.335	42.788	9.500	1.00	0.00
ATOM	503	1HH1	ARG	S	448	21.430	45.781	10.938	1.00	0.00
ATOM	504	2HH1	ARG	S	448	20.443	44.407	11.166	1.00	0.00
ATOM	505	1HH2	ARG	S	448	22.741	45.988	9.014	1.00	0.00
ATOM	506	2HH2	ARG	S	448	22.951	44.628	7.993	1.00	0.00
ATOM	507	N	HIS	S	449	15.650	43.000	7.953	1.00	0.00
ATOM	508	CA	HIS	S	449	14.277	43.153	7.487	1.00	0.00
ATOM	509	C	HIS	S	449	13.951	44.575	7.038	1.00	0.00
ATOM	510	O	HIS	S	449	13.931	44.870	5.848	1.00	0.00
ATOM	511	CB	HIS	S	449	13.227	42.683	8.513	1.00	0.00
ATOM	512	CG	HIS	S	449	13.749	41.636	9.470	1.00	0.00
ATOM	513	ND1	HIS	S	449	14.569	41.937	10.493	1.00	0.00
ATOM	514	CD2	HIS	S	449	13.467	40.265	9.494	1.00	0.00
ATOM	515	CE1	HIS	S	449	14.804	40.760	11.162	1.00	0.00
ATOM	516	NE2	HIS	S	449	14.129	39.735	10.554	1.00	0.00
ATOM	517	H	HIS	S	449	15.973	43.506	8.752	1.00	0.00
ATOM	518	HD1	HIS	S	449	14.951	42.816	10.705	1.00	0.00
ATOM	519	N	THR	S	450	13.626	45.428	8.032	1.00	0.00
ATOM	520	CA	THR	S	450	13.173	46.806	7.795	1.00	0.00
ATOM	521	C	THR	S	450	12.822	47.600	9.058	1.00	0.00
ATOM	522	O	THR	S	450	12.599	48.805	9.018	1.00	0.00
ATOM	523	CB	THR	S	450	12.013	46.862	6.757	1.00	0.00
ATOM	524	OG1	THR	S	450	11.743	48.196	6.306	1.00	0.00
ATOM	525	CG2	THR	S	450	10.730	46.190	7.255	1.00	0.00
ATOM	526	H	THR	S	450	13.888	45.118	8.945	1.00	0.00
ATOM	527	HG1	THR	S	450	12.483	48.478	5.767	1.00	0.00
ATOM	528	N	VAL	S	451	12.696	46.895	10.195	1.00	0.00
ATOM	529	CA	VAL	S	451	12.153	47.702	11.287	1.00	0.00
ATOM	530	C	VAL	S	451	13.179	48.295	12.260	1.00	0.00
ATOM	531	O	VAL	S	451	13.427	49.500	12.206	1.00	0.00
ATOM	532	CB	VAL	S	451	10.914	47.060	11.957	1.00	0.00
ATOM	533	CG1	VAL	S	451	10.097	48.103	12.721	1.00	0.00
ATOM	534	CG2	VAL	S	451	10.037	46.294	10.965	1.00	0.00
ATOM	535	H	VAL	S	451	13.116	45.993	10.321	1.00	0.00
ATOM	536	N	PRO	S	452	13.782	47.463	13.160	1.00	0.00
ATOM	537	CA	PRO	S	452	14.742	48.047	14.097	1.00	0.00
ATOM	538	C	PRO	S	452	16.079	48.335	13.439	1.00	0.00
ATOM	539	O	PRO	S	452	17.018	47.548	13.514	1.00	0.00
ATOM	540	CB	PRO	S	452	14.871	46.982	15.196	1.00	0.00
ATOM	541	CG	PRO	S	452	13.816	45.915	14.903	1.00	0.00
ATOM	542	CD	PRO	S	452	13.629	46.032	13.399	1.00	0.00
ATOM	543	N	GLN	S	453	16.120	49.513	12.808	1.00	0.00
ATOM	544	CA	GLN	S	453	17.317	49.925	12.082	1.00	0.00
ATOM	545	C	GLN	S	453	18.587	49.982	12.900	1.00	0.00
ATOM	546	O	GLN	S	453	18.581	50.139	14.121	1.00	0.00
ATOM	547	CB	GLN	S	453	17.038	51.254	11.420	1.00	0.00
ATOM	548	CG	GLN	S	453	15.926	51.091	10.389	1.00	0.00
ATOM	549	CD	GLN	S	453	15.375	52.450	10.056	1.00	0.00
ATOM	550	OE1	GLN	S	453	14.170	52.689	10.072	1.00	0.00
ATOM	551	NE2	GLN	S	453	16.305	53.354	9.751	1.00	0.00
ATOM	552	H	GLN	S	453	15.279	50.052	12.766	1.00	0.00
ATOM	553	1HE2	GLN	S	453	16.031	54.296	9.570	1.00	0.00
ATOM	554	2HE2	GLN	S	453	17.275	53.095	9.744	1.00	0.00

ATOM	555	N	CYS	S	454	19.674	49.781	12.143	1.00	0.00
ATOM	556	CA	CYS	S	454	20.979	49.500	12.752	1.00	0.00
ATOM	557	C	CYS	S	454	21.470	50.622	13.657	1.00	0.00
ATOM	558	O	CYS	S	454	20.971	51.743	13.611	1.00	0.00
ATOM	559	CB	CYS	S	454	22.006	49.226	11.657	1.00	0.00
ATOM	560	SG	CYS	S	454	21.338	48.159	10.350	1.00	0.00
ATOM	561	H	CYS	S	454	19.490	49.752	11.162	1.00	0.00
ATOM	562	N	CYS	S	455	22.482	50.313	14.491	1.00	0.00
ATOM	563	CA	CYS	S	455	22.980	51.419	15.325	1.00	0.00
ATOM	564	C	CYS	S	455	23.755	52.455	14.521	1.00	0.00
ATOM	565	O	CYS	S	455	24.018	52.227	13.336	1.00	0.00
ATOM	566	CB	CYS	S	455	23.853	50.894	16.460	1.00	0.00
ATOM	567	SG	CYS	S	455	23.196	49.448	17.341	1.00	0.00
ATOM	568	H	CYS	S	455	22.933	49.419	14.477	1.00	0.00
ATOM	569	N	TYR	S	456	24.119	53.580	15.183	1.00	0.00
ATOM	570	CA	TYR	S	456	24.860	54.653	14.502	1.00	0.00
ATOM	571	C	TYR	S	456	25.450	55.690	15.461	1.00	0.00
ATOM	572	O	TYR	S	456	25.005	55.852	16.594	1.00	0.00
ATOM	573	CB	TYR	S	456	23.899	55.315	13.507	1.00	0.00
ATOM	574	CG	TYR	S	456	24.487	56.450	12.704	1.00	0.00
ATOM	575	CD1	TYR	S	456	25.356	56.181	11.631	1.00	0.00
ATOM	576	CD2	TYR	S	456	24.116	57.761	13.052	1.00	0.00
ATOM	577	CE1	TYR	S	456	25.806	57.260	10.854	1.00	0.00
ATOM	578	CE2	TYR	S	456	24.564	58.837	12.273	1.00	0.00
ATOM	579	CZ	TYR	S	456	25.376	58.569	11.158	1.00	0.00
ATOM	580	OH	TYR	S	456	25.732	59.625	10.345	1.00	0.00
ATOM	581	H	TYR	S	456	23.682	53.782	16.058	1.00	0.00
ATOM	582	HH	TYR	S	456	26.667	59.534	10.136	1.00	0.00
ATOM	583	N	GLY	S	457	26.441	56.452	14.956	1.00	0.00
ATOM	584	CA	GLY	S	457	26.709	57.754	15.567	1.00	0.00
ATOM	585	C	GLY	S	457	27.578	58.605	14.667	1.00	0.00
ATOM	586	O	GLY	S	457	28.272	58.076	13.811	1.00	0.00
ATOM	587	H	GLY	S	457	26.963	56.179	14.140	1.00	0.00
ATOM	588	N	PHE	S	458	27.571	59.917	14.923	1.00	0.00
ATOM	589	CA	PHE	S	458	28.646	60.677	14.289	1.00	0.00
ATOM	590	C	PHE	S	458	30.015	60.446	14.912	1.00	0.00
ATOM	591	O	PHE	S	458	31.054	60.812	14.368	1.00	0.00
ATOM	592	CB	PHE	S	458	28.295	62.162	14.232	1.00	0.00
ATOM	593	CG	PHE	S	458	27.073	62.351	13.363	1.00	0.00
ATOM	594	CD1	PHE	S	458	25.796	62.428	13.936	1.00	0.00
ATOM	595	CD2	PHE	S	458	27.231	62.450	11.963	1.00	0.00
ATOM	596	CE1	PHE	S	458	24.660	62.606	13.150	1.00	0.00
ATOM	597	CE2	PHE	S	458	26.096	62.630	11.150	1.00	0.00
ATOM	598	CZ	PHE	S	458	24.822	62.705	11.752	1.00	0.00
ATOM	599	H	PHE	S	458	26.988	60.332	15.619	1.00	0.00
ATOM	600	N	CYS	S	459	29.996	59.778	16.079	1.00	0.00
ATOM	601	CA	CYS	S	459	31.253	59.146	16.496	1.00	0.00
ATOM	602	C	CYS	S	459	31.778	59.109	15.512	1.00	0.00
ATOM	603	O	CYS	S	459	32.972	57.854	15.395	1.00	0.00
ATOM	604	CB	CYS	S	459	31.122	58.494	17.867	1.00	0.00
ATOM	605	SG	CYS	S	459	30.818	59.692	19.192	1.00	0.00
ATOM	606	H	CYS	S	459	29.115	59.528	16.467	1.00	0.00
ATOM	607	N	ILE	S	460	30.830	57.504	14.786	1.00	0.00
ATOM	608	CA	ILE	S	460	31.293	56.464	13.872	1.00	0.00
ATOM	609	C	ILE	S	460	31.537	56.972	12.453	1.00	0.00
ATOM	610	O	ILE	S	460	32.377	56.452	11.705	1.00	0.00
ATOM	611	CB	ILE	S	460	30.382	55.231	13.940	1.00	0.00
ATOM	612	CG1	ILE	S	460	29.950	54.935	15.387	1.00	0.00
ATOM	613	CG2	ILE	S	460	31.117	54.021	13.356	1.00	0.00
ATOM	614	CD1	ILE	S	460	31.088	54.488	16.317	1.00	0.00
ATOM	615	H	ILE	S	460	29.925	57.914	14.690	1.00	0.00
ATOM	616	N	ASP	S	461	30.869	58.108	12.169	1.00	0.00

ATOM	617	CA	ASP	S	461	31.370	58.928	11.064	1.00	0.00
ATOM	618	C	ASP	S	461	32.714	59.562	11.410	1.00	0.00
ATOM	619	O	ASP	S	461	33.602	59.761	10.584	1.00	0.00
ATOM	620	CB	ASP	S	461	30.316	59.933	10.557	1.00	0.00
ATOM	621	CG	ASP	S	461	29.111	59.192	9.986	1.00	0.00
ATOM	622	OD1	ASP	S	461	28.443	58.818	10.754	1.00	0.00
ATOM	623	OD2	ASP	S	461	28.819	59.257	8.789	1.00	0.00
ATOM	624	H	ASP	S	461	30.045	58.376	12.672	1.00	0.00
ATOM	625	N	LEU	S	462	32.932	59.714	12.731	1.00	0.00
ATOM	626	CA	LEU	S	462	34.315	59.947	13.165	1.00	0.00
ATOM	627	C	LEU	S	462	35.288	58.823	12.831	1.00	0.00
ATOM	628	O	LEU	S	462	36.497	59.032	12.804	1.00	0.00
ATOM	629	CB	LEU	S	462	34.445	60.338	14.640	1.00	0.00
ATOM	630	CG	LEU	S	462	35.148	61.665	14.945	1.00	0.00
ATOM	631	CD1	LEU	S	462	35.412	61.781	16.444	1.00	0.00
ATOM	632	CD2	LEU	S	462	26.421	61.908	14.131	1.00	0.00
ATOM	633	H	LEU	S	462	32.162	59.694	13.366	1.00	0.00
ATOM	634	N	LEU	S	463	34.747	57.657	12.473	1.00	0.00
ATOM	635	CA	LEU	S	463	35.577	56.668	11.786	1.00	0.00
ATOM	636	C	LEU	S	463	35.742	56.840	10.281	1.00	0.00
ATOM	637	O	LEU	S	463	36.661	56.275	9.701	1.00	0.00
ATOM	638	CB	LEU	S	463	35.160	55.228	12.096	1.00	0.00
ATOM	639	CG	LEU	S	463	35.174	54.883	13.584	1.00	0.00
ATOM	640	CD1	LEU	S	463	34.710	53.448	13.827	1.00	0.00
ATOM	641	CD2	LEU	S	463	36.538	55.143	14.215	1.00	0.00
ATOM	642	H	LEU	S	463	33.768	57.557	12.611	1.00	0.00
ATOM	643	N	ILE	S	464	34.926	57.682	9.633	1.00	0.00
ATOM	644	CA	ILE	S	464	35.205	57.975	8.211	1.00	0.00
ATOM	645	C	ILE	S	464	36.656	58.351	7.906	1.00	0.00
ATOM	646	O	ILE	S	464	37.348	57.555	7.154	1.00	0.00
ATOM	647	CB	ILE	S	464	34.236	59.016	7.612	1.00	0.00
ATOM	648	CG1	ILE	S	464	32.807	58.479	7.669	1.00	0.00
ATOM	649	CG2	ILE	S	464	34.592	59.360	6.156	1.00	0.00
ATOM	650	CD1	ILE	S	464	31.775	59.409	7.027	1.00	0.00
ATOM	651	H	ILE	S	464	34.079	57.977	10.069	1.00	0.00
ATOM	652	N	LYS	S	465	37.128	59.425	8.557	1.00	0.00
ATOM	653	CA	LYS	S	465	38.535	59.777	8.344	1.00	0.00
ATOM	654	C	LYS	S	465	39.601	58.763	8.741	1.00	0.00
ATOM	655	O	LYS	S	465	40.778	58.981	8.469	1.00	0.00
ATOM	656	CB	LYS	S	465	38.894	61.103	9.003	1.00	0.00
ATOM	657	CG	LYS	S	465	38.574	62.312	8.131	1.00	0.00
ATOM	658	CD	LYS	S	465	39.289	63.544	8.671	1.00	0.00
ATOM	659	CE	LYS	S	465	38.974	64.823	7.905	1.00	0.00
ATOM	660	NZ	LYS	S	465	39.913	65.868	8.325	1.00	0.00
ATOM	661	H	LYS	S	465	36.513	60.049	9.031	1.00	0.00
ATOM	662	1HZ	LYS	S	465	40.495	66.073	7.489	1.00	0.00
ATOM	663	2HZ	LYS	S	465	39.401	66.718	8.646	1.00	0.00
ATOM	664	3HZ	LYS	S	465	40.548	65.557	9.089	1.00	0.00
ATOM	665	N	LEU	S	466	39.156	57.684	9.402	1.00	0.00
ATOM	666	CA	LEU	S	466	40.119	56.695	9.882	1.00	0.00
ATOM	667	C	LEU	S	466	39.985	55.355	9.166	1.00	0.00
ATOM	668	O	LEU	S	466	40.857	54.877	8.432	1.00	0.00
ATOM	669	CB	LEU	S	466	39.985	56.514	11.404	1.00	0.00
ATOM	670	CG	LEU	S	466	39.762	57.797	12.223	1.00	0.00
ATOM	671	CD1	LEU	S	466	39.515	57.485	13.699	1.00	0.00
ATOM	672	CD2	LEU	S	466	40.881	58.825	12.065	1.00	0.00
ATOM	673	H	LEU	S	466	38.181	57.575	9.578	1.00	0.00
ATOM	674	N	ALA	S	467	38.812	54.730	9.383	1.00	0.00
ATOM	675	CA	ALA	S	467	38.497	53.429	8.792	1.00	0.00
ATOM	676	C	ALA	S	467	38.572	53.382	7.278	1.00	0.00
ATOM	677	O	ALA	S	467	39.069	52.427	6.691	1.00	0.00
ATOM	678	CB	ALA	S	467	37.106	52.963	9.224	1.00	0.00

ATOM	679	H	ALA	S	467	38.160	55.164	10.005	1.00	0.00
ATOM	680	N	ARG	S	468	38.107	54.473	6.652	1.00	0.00
ATOM	681	CA	ARG	S	468	38.128	54.507	5.183	1.00	0.00
ATOM	682	C	ARG	S	468	39.479	54.922	4.586	1.00	0.00
ATOM	683	O	ARG	S	468	39.571	55.627	3.584	1.00	0.00
ATOM	684	CB	ARG	S	468	36.946	55.352	4.669	1.00	0.00
ATOM	685	CG	ARG	S	468	35.572	54.038	5.238	1.00	0.00
ATOM	686	CD	ARG	S	468	34.388	55.740	4.664	1.00	0.00
ATOM	687	NE	ARG	S	468	33.109	55.401	5.308	1.00	0.00
ATOM	688	CZ	ARG	S	468	31.995	56.166	5.145	1.00	0.00
ATOM	689	NH1	ARG	S	468	30.874	55.865	5.796	1.00	0.00
ATOM	690	NH2	ARG	S	468	32.020	57.227	4.351	1.00	0.00
ATOM	691	H	ARG	S	468	37.842	55.290	7.165	1.00	0.00
ATOM	692	HE	ARG	S	468	33.089	54.649	5.976	1.00	0.00
ATOM	693	1HH1	ARG	S	468	30.064	56.464	5.783	1.00	0.00
ATOM	694	2HH1	ARG	S	468	30.809	55.036	6.361	1.00	0.00
ATOM	695	1HH2	ARG	S	468	31.256	57.872	4.329	1.00	0.00
ATOM	696	2HH2	ARG	S	468	32.817	57.397	3.777	1.00	0.00
ATOM	697	N	THR	S	469	40.526	54.431	5.277	1.00	0.00
ATOM	698	CA	THR	S	469	41.926	54.770	5.042	1.00	0.00
ATOM	699	C	THR	S	469	42.869	53.643	5.477	1.00	0.00
ATOM	700	O	THR	S	469	43.738	53.207	4.729	1.00	0.00
ATOM	701	CB	THR	S	469	42.290	56.065	5.792	1.00	0.00
ATOM	702	OG1	THR	S	469	41.178	56.974	5.844	1.00	0.00
ATOM	703	CG2	THR	S	469	43.526	56.744	8.201	1.00	0.00
ATOM	704	H	THR	S	469	40.306	53.779	5.994	1.00	0.00
ATOM	705	HG1	THR	S	469	40.583	56.624	6.510	1.00	0.00
ATOM	706	N	MET	S	470	42.652	53.208	6.750	1.00	0.00
ATOM	707	CA	MET	S	470	43.650	52.414	7.493	1.00	0.00
ATOM	708	C	MET	S	470	44.471	51.444	6.669	1.00	0.00
ATOM	709	O	MET	S	470	45.689	51.547	6.570	1.00	0.00
ATOM	710	CB	MET	S	470	43.044	51.690	8.704	1.00	0.00
ATOM	711	CG	MET	S	470	42.788	52.603	9.907	1.00	0.00
ATOM	712	SD	MET	S	470	42.311	51.692	11.387	1.00	0.00
ATOM	713	CE	MET	S	470	41.945	53.100	12.447	1.00	0.00
ATOM	714	H	MET	S	470	41.819	53.492	7.220	1.00	0.00
ATOM	715	N	ASN	S	471	43.736	50.557	5.992	1.00	0.00
ATOM	716	CA	ASN	S	471	44.370	50.007	4.801	1.00	0.00
ATOM	717	C	ASN	S	471	43.434	50.128	3.630	1.00	0.00
ATOM	718	O	ASN	S	471	42.247	49.825	3.714	1.00	0.00
ATOM	719	CB	ASN	S	471	44.799	48.553	4.977	1.00	0.00
ATOM	720	CG	ASN	S	471	46.143	48.479	5.661	1.00	0.00
ATOM	721	OD1	ASN	S	471	47.158	48.936	5.151	1.00	0.00
ATOM	722	ND2	ASN	S	471	46.137	47.838	6.821	1.00	0.00
ATOM	723	H	ASN	S	471	42.750	50.483	6.142	1.00	0.00
ATOM	724	1HD2	ASN	S	471	46.978	47.679	7.322	1.00	0.00
ATOM	725	2HD2	ASN	S	471	45.279	47.576	7.273	1.00	0.00
ATOM	726	N	PHE	S	472	44.024	50.572	2.512	1.00	0.00
ATOM	727	CA	PHE	S	472	43.264	50.597	1.257	1.00	0.00
ATOM	728	C	PHE	S	472	42.933	49.216	0.705	1.00	0.00
ATOM	729	O	PHE	S	472	42.035	49.013	-0.102	1.00	0.00
ATOM	730	CB	PHE	S	472	43.976	51.471	0.221	1.00	0.00
ATOM	731	CG	PHE	S	472	44.093	52.884	0.750	1.00	0.00
ATOM	732	CD1	PHE	S	472	45.341	53.345	1.224	1.00	0.00
ATOM	733	CD2	PHE	S	472	42.952	53.717	0.771	1.00	0.00
ATOM	734	CE1	PHE	S	472	45.449	54.654	1.733	1.00	0.00
ATOM	735	CE2	PHE	S	472	43.058	55.026	1.279	1.00	0.00
ATOM	736	CZ	PHE	S	472	44.305	55.480	1.756	1.00	0.00
ATOM	737	H	PHE	S	472	44.965	50.914	2.566	1.00	0.00
ATOM	738	N	THR	S	473	43.660	48.230	1.255	1.00	0.00
ATOM	739	CA	THR	S	473	43.158	46.873	1.087	1.00	0.00
ATOM	740	C	THR	S	473	42.016	46.545	2.056	1.00	0.00

ATOM	741	O	THR	S	473	42.103	45.714	2.957	1.00	0.00
ATOM	742	CB	THR	S	473	44.338	45.880	1.116	1.00	0.00
ATOM	743	OG1	THR	S	473	43.915	44.559	0.775	1.00	0.00
ATOM	744	CG2	THR	S	473	45.147	45.887	2.416	1.00	0.00
ATOM	745	H	THR	S	473	44.363	48.459	1.921	1.00	0.00
ATOM	746	HG1	THR	S	473	43.298	44.303	1.453	1.00	0.00
ATOM	747	N	TYR	S	474	40.904	47.249	1.802	1.00	0.00
ATOM	748	CA	TYR	S	474	39.624	46.979	2.449	1.00	0.00
ATOM	749	C	TYR	S	474	39.555	47.140	3.964	1.00	0.00
ATOM	750	O	TYR	S	474	38.558	46.760	4.576	1.00	0.00
ATOM	751	CB	TYR	S	474	39.042	45.606	2.041	1.00	0.00
ATOM	752	CG	TYR	S	474	39.219	45.297	0.565	1.00	0.00
ATOM	753	CD1	TYR	S	474	40.253	44.417	0.183	1.00	0.00
ATOM	754	CD2	TYR	S	474	38.354	45.876	-0.389	1.00	0.00
ATOM	755	CE1	TYR	S	474	40.435	44.117	-1.177	1.00	0.00
ATOM	756	CE2	TYR	S	474	38.530	45.567	-1.751	1.00	0.00
ATOM	757	CZ	TYR	S	474	39.573	44.696	-2.130	1.00	0.00
ATOM	758	OH	TYR	S	474	39.772	44.399	-3.468	1.00	0.00
ATOM	759	H	TYR	S	474	40.949	47.933	1.074	1.00	0.00
ATOM	760	HH	TYR	S	474	40.714	44.379	-3.591	1.00	0.00
ATOM	761	N	GLU	S	475	40.599	47.712	4.587	1.00	0.00
ATOM	762	CA	GLU	S	475	40.574	47.703	6.053	1.00	0.00
ATOM	763	C	GLU	S	475	39.794	48.808	6.757	1.00	0.00
ATOM	764	O	GLU	S	475	40.215	49.425	7.734	1.00	0.00
ATOM	765	CB	GLU	S	475	41.962	47.480	6.660	1.00	0.00
ATOM	766	CG	GLU	S	475	41.940	46.853	8.061	1.00	0.00
ATOM	767	CD	GLU	S	475	43.338	46.769	8.644	1.00	0.00
ATOM	768	OE1	GLU	S	475	43.981	47.811	8.788	1.00	0.00
ATOM	769	OE2	GLU	S	475	43.779	45.663	8.966	1.00	0.00
ATOM	770	H	GLU	S	475	41.365	48.095	4.068	1.00	0.00
ATOM	771	N	VAL	S	476	38.561	48.962	6.255	1.00	0.00
ATOM	772	CA	VAL	S	476	37.514	49.475	7.133	1.00	0.00
ATOM	773	C	VAL	S	476	37.283	48.569	8.341	1.00	0.00
ATOM	774	O	VAL	S	476	37.877	47.495	8.491	1.00	0.00
ATOM	775	CB	VAL	S	476	36.214	49.698	6.343	1.00	0.00
ATOM	776	CG1	VAL	S	476	36.414	50.771	5.270	1.00	0.00
ATOM	777	CG2	VAL	S	476	35.654	48.396	5.757	1.00	0.00
ATOM	778	H	VAL	S	476	38.304	48.507	5.407	1.00	0.00
ATOM	779	N	HIS	S	477	36.414	49.072	9.221	1.00	0.00
ATOM	780	CA	HIS	S	477	36.089	48.258	10.382	1.00	0.00
ATOM	781	C	HIS	S	477	35.062	47.182	10.101	1.00	0.00
ATOM	782	O	HIS	S	477	34.417	47.085	9.060	1.00	0.00
ATOM	783	CB	HIS	S	477	35.653	49.131	11.563	1.00	0.00
ATOM	784	CG	HIS	S	477	36.873	49.738	12.211	1.00	0.00
ATOM	785	ND1	HIS	S	477	37.943	49.023	12.603	1.00	0.00
ATOM	786	CD2	HIS	S	477	37.108	51.084	12.503	1.00	0.00
ATOM	787	CE1	HIS	S	477	38.875	49.900	13.132	1.00	0.00
ATOM	788	NE2	HIS	S	477	30.337	51.172	13.073	1.00	0.00
ATOM	789	H	HIS	S	477	35.814	49.820	8.950	1.00	0.00
ATOM	790	HD1	HIS	S	477	38.065	48.049	12.576	1.00	0.00
ATOM	791	N	LEU	S	478	34.934	46.330	11.122	1.00	0.00
ATOM	792	CA	LEU	S	478	33.935	45.269	11.085	1.00	0.00
ATOM	793	C	LEU	S	478	33.343	45.091	12.468	1.00	0.00
ATOM	794	O	LEU	S	478	33.764	45.704	13.449	1.00	0.00
ATOM	795	CB	LEU	S	478	34.551	43.964	10.570	1.00	0.00
ATOM	796	CG	LEU	S	478	33.560	43.015	9.883	1.00	0.00
ATOM	797	CD1	LEU	S	478	32.998	43.613	8.592	1.00	0.00
ATOM	798	CD2	LEU	S	478	34.141	41.616	9.679	1.00	0.00
ATOM	799	H	LEU	S	478	35.360	46.496	12.015	1.00	0.00
ATOM	800	N	VAL	S	479	32.314	44.233	12.526	1.00	0.00
ATOM	801	CA	VAL	S	479	31.576	43.932	13.754	1.00	0.00
ATOM	802	C	VAL	S	479	30.555	42.877	13.384	1.00	0.00

ATOM	803	O	VAL	S	479	30.092	42.879	12.249	1.00	0.00
ATOM	804	CB	VAL	S	479	30.893	45.210	14.293	1.00	0.00
ATOM	805	CG1	VAL	S	479	30.019	45.863	13.220	1.00	0.00
ATOM	806	CG2	VAL	S	479	30.170	45.014	15.361	1.00	0.00
ATOM	807	H	VAL	S	479	31.991	43.836	11.664	1.00	0.00
ATOM	808	N	ALA	S	480	30.211	42.011	14.349	1.00	0.00
ATOM	809	CA	ALA	S	480	29.016	41.196	14.125	1.00	0.00
ATOM	810	C	ALA	S	480	27.835	41.968	14.703	1.00	0.00
ATOM	811	O	ALA	S	480	27.719	43.173	14.449	1.00	0.00
ATOM	812	CB	ALA	S	480	29.219	39.817	14.766	1.00	0.00
ATOM	813	H	ALA	S	480	30.572	42.130	15.273	1.00	0.00
ATOM	814	N	ASP	S	481	27.010	41.310	15.536	1.00	0.00
ATOM	815	CA	ASP	S	481	26.420	42.066	16.642	1.00	0.00
ATOM	816	C	ASP	S	481	27.524	42.608	17.552	1.00	0.00
ATOM	817	O	ASP	S	481	28.708	42.294	17.373	1.00	0.00
ATOM	818	CB	ASP	S	481	25.486	41.143	17.446	1.00	0.00
ATOM	819	CG	ASP	S	481	26.310	40.163	18.276	1.00	0.00
ATOM	820	OD1	ASP	S	481	26.369	40.327	19.492	1.00	0.00
ATOM	821	OD2	ASP	S	481	26.942	39.279	17.706	1.00	0.00
ATOM	822	H	ASP	S	481	27.046	40.322	15.673	1.00	0.00
ATOM	823	N	GLY	S	482	27.108	43.356	18.574	1.00	0.00
ATOM	824	CA	GLY	S	482	28.124	43.857	19.493	1.00	0.00
ATOM	825	C	GLY	S	482	27.657	43.799	20.930	1.00	0.00
ATOM	826	O	GLY	S	482	27.577	44.690	21.751	1.00	0.00
ATOM	827	H	GLY	S	482	26.126	43.386	18.732	1.00	0.00
ATOM	828	N	LYS	S	483	26.891	42.738	21.202	1.00	0.00
ATOM	829	CA	LYS	S	483	26.034	42.850	22.376	1.00	0.00
ATOM	830	C	LYS	S	483	26.588	42.367	23.702	1.00	0.00
ATOM	831	O	LYS	S	483	26.202	41.379	24.313	1.00	0.00
ATOM	832	CB	LYS	S	483	24.601	42.396	22.068	1.00	0.00
ATOM	833	CG	LYS	S	483	23.730	43.603	21.667	1.00	0.00
ATOM	834	CD	LYS	S	483	24.293	44.386	20.474	1.00	0.00
ATOM	835	CE	LYS	S	483	23.894	45.856	20.423	1.00	0.00
ATOM	836	NZ	LYS	S	483	24.925	46.612	19.700	1.00	0.00
ATOM	837	H	LYS	S	483	26.815	41.953	20.852	1.00	0.00
ATOM	838	1HZ	LYS	S	483	25.118	46.303	18.731	1.00	0.00
ATOM	839	2HZ	LYS	S	483	24.644	47.611	19.702	1.00	0.00
ATOM	840	3HZ	LYS	S	483	25.832	46.567	20.197	1.00	0.00
ATOM	841	N	PHE	S	484	27.520	43.235	24.159	1.00	0.00
ATOM	842	CA	PHE	S	484	27.960	43.319	25.554	1.00	0.00
ATOM	843	C	PHE	S	484	28.597	42.088	26.169	1.00	0.00
ATOM	844	O	PHE	S	484	29.817	41.941	26.196	1.00	0.00
ATOM	845	CB	PHE	S	484	26.859	43.889	26.469	1.00	0.00
ATOM	846	CG	PHE	S	484	26.264	45.145	25.880	1.00	0.00
ATOM	847	CD1	PHE	S	484	24.969	45.092	25.320	1.00	0.00
ATOM	848	CD2	PHE	S	484	27.010	46.344	25.896	1.00	0.00
ATOM	849	CE1	PHE	S	484	24.410	46.254	24.757	1.00	0.00
ATOM	850	CE2	PHE	S	484	26.452	47.507	25.334	1.00	0.00
ATOM	851	CZ	PHE	S	484	25.160	47.448	24.770	1.00	0.00
ATOM	852	H	PHE	S	484	27.823	43.941	23.520	1.00	0.00
ATOM	853	N	GLY	S	485	27.738	41.225	26.713	1.00	0.00
ATOM	854	CA	GLY	S	485	28.249	40.197	27.612	1.00	0.00
ATOM	855	C	GLY	S	485	28.411	40.692	29.041	1.00	0.00
ATOM	856	O	GLY	S	485	28.290	41.876	29.354	1.00	0.00
ATOM	857	H	GLY	S	485	26.764	41.314	26.499	1.00	0.00
ATOM	858	N	THR	S	486	28.696	39.718	29.908	1.00	0.00
ATOM	859	CA	THR	S	486	28.836	39.983	31.342	1.00	0.00
ATOM	860	C	THR	S	486	29.868	41.035	31.736	1.00	0.00
ATOM	861	O	THR	S	486	31.080	40.810	31.659	1.00	0.00
ATOM	862	CB	THR	S	486	29.138	38.663	32.043	1.00	0.00
ATOM	863	OG1	THR	S	486	30.317	38.057	31.479	1.00	0.00
ATOM	864	CG2	THR	S	486	27.956	37.694	31.974	1.00	0.00

ATOM	865	H	THR	S	486	28.766	38.776	29.584	1.00	0.00
ATOM	866	HG1	THR	S	486	30.834	38.812	31.197	1.00	0.00
ATOM	867	N	GLN	S	487	29.318	42.193	32.124	1.00	0.00
ATOM	868	CA	GLN	S	487	30.179	43.245	32.651	1.00	0.00
ATOM	869	C	GLN	S	487	30.106	43.205	34.154	1.00	0.00
ATOM	870	O	GLN	S	487	29.129	43.643	34.759	1.00	0.00
ATOM	871	CB	GLN	S	487	29.749	44.632	32.175	1.00	0.00
ATOM	872	CG	GLN	S	487	30.811	45.687	32.505	1.00	0.00
ATOM	873	CD	GLN	S	487	30.210	47.073	32.441	1.00	0.00
ATOM	874	OE1	GLN	S	487	29.281	47.371	31.693	1.00	0.00
ATOM	875	NE2	GLN	S	487	30.762	47.920	33.318	1.00	0.00
ATOM	876	H	GLN	S	487	28.338	42.224	32.287	1.00	0.00
ATOM	877	1HE2	GLN	S	487	30.336	48.082	33.532	1.00	0.00
ATOM	878	2HE2	GLN	S	487	31.615	47.681	33.780	1.00	0.00
ATOM	879	N	GLU	S	488	31.158	42.619	34.724	1.00	0.00
ATOM	880	CA	GLU	S	488	31.127	42.278	36.141	1.00	0.00
ATOM	881	C	GLU	S	488	32.221	43.028	36.887	1.00	0.00
ATOM	882	O	GLU	S	488	32.883	43.898	36.337	1.00	0.00
ATOM	883	CB	GLU	S	488	31.328	40.763	36.260	1.00	0.00
ATOM	884	CG	GLU	S	488	30.268	39.900	35.563	1.00	0.00
ATOM	885	CD	GLU	S	488	30.701	38.442	35.437	1.00	0.00
ATOM	886	OE1	GLU	S	488	29.976	37.661	34.837	1.00	0.00
ATOM	887	OE2	GLU	S	488	31.769	38.059	35.899	1.00	0.00
ATOM	888	H	GLU	S	488	31.962	42.397	34.172	1.00	0.00
ATOM	889	N	ARG	S	489	32.443	42.589	38.158	1.00	0.00
ATOM	890	CA	ARG	S	489	33.714	42.862	38.816	1.00	0.00
ATOM	891	C	ARG	S	489	34.960	42.573	37.977	1.00	0.00
ATOM	892	O	ARG	S	489	34.966	41.712	37.100	1.00	0.00
ATOM	893	CB	ARG	S	489	33.789	42.092	40.181	1.00	0.00
ATOM	894	CG	ARG	S	489	34.131	40.590	40.062	1.00	0.00
ATOM	895	CD	ARG	S	489	33.091	39.759	39.304	1.00	0.00
ATOM	896	NE	ARG	S	489	33.558	38.414	38.990	1.00	0.00
ATOM	897	CZ	ARG	S	489	34.127	38.127	37.796	1.00	0.00
ATOM	898	NH1	ARG	S	489	34.492	36.864	37.591	1.00	0.00
ATOM	899	NH2	ARG	S	489	34.341	39.062	36.869	1.00	0.00
ATOM	900	H	ARG	S	489	31.582	42.134	38.588	1.00	0.00
ATOM	901	HE	ARG	S	489	33.434	37.732	39.710	1.00	0.00
ATOM	902	1HH1	ARG	S	489	34.938	36.575	36.742	1.00	0.00
ATOM	903	2HH1	ARG	S	489	34.338	36.167	38.293	1.00	0.00
ATOM	904	1HH2	ARG	S	489	34.770	38.917	35.972	1.00	0.00
ATOM	905	2HH2	ARG	S	489	34.071	40.009	37.050	1.00	0.00
ATOM	906	N	VAL	S	490	36.020	43.314	38.309	1.00	0.00
ATOM	907	CA	VAL	S	490	37.302	43.139	37.620	1.00	0.00
ATOM	908	C	VAL	S	490	38.057	41.929	38.153	1.00	0.00
ATOM	909	O	VAL	S	490	38.259	41.776	39.350	1.00	0.00
ATOM	910	CB	VAL	S	490	38.098	44.440	37.760	1.00	0.00
ATOM	911	CG1	VAL	S	490	39.477	44.400	37.095	1.00	0.00
ATOM	912	CG2	VAL	S	490	37.239	45.592	37.235	1.00	0.00
ATOM	913	H	VAL	S	490	35.934	43.916	39.102	1.00	0.00
ATOM	914	N	ASN	S	491	38.388	41.029	37.222	1.00	0.00
ATOM	915	CA	ASN	S	491	38.824	39.684	37.593	1.00	0.00
ATOM	916	C	ASN	S	491	39.869	39.062	36.665	1.00	0.00
ATOM	917	O	ASN	S	491	39.734	37.937	36.177	1.00	0.00
ATOM	918	CB	ASN	S	491	37.556	38.839	37.730	1.00	0.00
ATOM	919	CG	ASN	S	491	37.785	37.422	38.213	1.00	0.00
ATOM	920	OD1	ASN	S	491	37.196	36.480	37.692	1.00	0.00
ATOM	921	ND2	ASN	S	491	38.620	37.292	39.243	1.00	0.00
ATOM	922	H	ASN	S	491	38.269	41.303	36.266	1.00	0.00
ATOM	923	1HD2	ASN	S	491	39.035	38.102	39.666	1.00	0.00
ATOM	924	2HD2	ASN	S	491	38.836	36.393	39.616	1.00	0.00
ATOM	925	N	ASN	S	492	40.948	39.842	36.476	1.00	0.00
ATOM	926	CA	ASN	S	492	42.122	39.434	35.684	1.00	0.00

ATOM	927	C	ASN	S	492	42.688	38.054	35.993	1.00	0.00
ATOM	928	O	ASN	S	492	43.293	37.380	35.158	1.00	0.00
ATOM	929	CB	ASN	S	492	43.230	40.481	35.814	1.00	0.00
ATOM	930	CG	ASN	S	492	44.172	40.461	34.619	1.00	0.00
ATOM	931	OD1	ASN	S	492	44.716	39.438	34.198	1.00	0.00
ATOM	932	ND2	ASN	S	492	44.431	41.683	34.142	1.00	0.00
ATOM	933	H	ASN	S	492	40.893	40.771	36.840	1.00	0.00
ATOM	934	1HD2	ASN	S	492	43.794	42.429	34.351	1.00	0.00
ATOM	935	2HD2	ASN	S	492	45.239	41.824	33.568	1.00	0.00
ATOM	936	N	SER	S	493	42.415	37.633	37.233	1.00	0.00
ATOM	937	CA	SER	S	493	42.701	36.284	37.719	1.00	0.00
ATOM	938	C	SER	S	493	42.368	35.129	36.775	1.00	0.00
ATOM	939	O	SER	S	493	43.136	34.183	36.634	1.00	0.00
ATOM	940	CB	SER	S	493	42.011	36.142	39.072	1.00	0.00
ATOM	941	OG	SER	S	493	41.927	37.443	39.682	1.00	0.00
ATOM	942	H	SER	S	493	42.022	38.303	37.867	1.00	0.00
ATOM	943	HG	SER	S	493	42.286	37.350	40.559	1.00	0.00
ATOM	944	N	ASN	S	494	41.213	35.281	36.104	1.00	0.00
ATOM	945	CA	ASN	S	494	41.027	34.543	34.853	1.00	0.00
ATOM	946	C	ASN	S	494	40.323	35.387	33.818	1.00	0.00
ATOM	947	O	ASN	S	494	39.302	35.028	33.238	1.00	0.00
ATOM	948	CB	ASN	S	494	40.329	33.183	34.935	1.00	0.00
ATOM	949	CG	ASN	S	494	40.528	32.424	33.674	1.00	0.00
ATOM	950	OD1	ASN	S	494	41.642	32.254	33.189	1.00	0.00
ATOM	951	ND2	ASN	S	494	39.406	31.969	33.111	1.00	0.00
ATOM	952	H	ASN	S	494	40.574	36.001	36.373	1.00	0.00
ATOM	953	1HD2	ASN	S	494	38.508	32.176	33.491	1.00	0.00
ATOM	954	2HD2	ASN	S	494	49.496	31.404	32.295	1.00	0.00
ATOM	955	N	LYS	S	495	40.936	36.566	33.628	1.00	0.00
ATOM	956	CA	LYS	S	495	40.699	37.386	32.439	1.00	0.00
ATOM	957	C	LYS	S	495	39.244	37.796	32.221	1.00	0.00
ATOM	958	O	LYS	S	495	38.790	38.143	31.135	1.00	0.00
ATOM	959	CB	LYS	S	495	41.345	36.706	31.215	1.00	0.00
ATOM	960	CG	LYS	S	495	42.886	36.613	31.262	1.00	0.00
ATOM	961	CD	LYS	S	495	43.548	35.637	32.256	1.00	0.00
ATOM	962	CE	LYS	S	495	45.044	35.862	32.553	1.00	0.00
ATOM	963	NZ	LYS	S	495	45.285	37.043	33.400	1.00	0.00
ATOM	964	H	LYS	S	495	41.734	36.708	34.209	1.00	0.00
ATOM	965	1HZ	LYS	S	495	46.281	37.042	33.677	1.00	0.00
ATOM	966	2HZ	LYS	S	495	45.091	37.966	32.947	1.00	0.00
ATOM	967	3HZ	LYS	S	495	44.704	36.986	34.262	1.00	0.00
ATOM	968	N	LYS	S	496	38.536	37.753	33.358	1.00	0.00
ATOM	969	CA	LYS	S	496	37.087	37.893	33.353	1.00	0.00
ATOM	970	C	LYS	S	496	36.677	39.307	33.697	1.00	0.00
ATOM	971	O	LYS	S	496	35.930	39.558	34.645	1.00	0.00
ATOM	972	CB	LYS	S	496	36.489	36.881	34.336	1.00	0.00
ATOM	973	CG	LYS	S	496	35.307	36.028	33.852	1.00	0.00
ATOM	974	CD	LYS	S	496	33.996	36.775	33.581	1.00	0.00
ATOM	975	CE	LYS	S	496	32.821	35.799	33.426	1.00	0.00
ATOM	976	NZ	LYS	S	496	31.583	36.529	33.159	1.00	0.00
ATOM	977	H	LYS	S	496	39.027	37.684	34.226	1.00	0.00
ATOM	978	1HZ	LYS	S	496	31.495	36.874	32.176	1.00	0.00
ATOM	979	2HZ	LYS	S	496	30.770	35.928	33.359	1.00	0.00
ATOM	980	3HZ	LYS	S	496	31.472	37.312	33.841	1.00	0.00
ATOM	981	N	GLU	S	497	37.207	40.211	32.865	1.00	0.00
ATOM	982	CA	GLU	S	497	36.952	41.634	33.103	1.00	0.00
ATOM	983	C	GLU	S	497	35.622	42.124	32.533	1.00	0.00
ATOM	984	O	GLU	S	497	35.004	43.074	33.020	1.00	0.00
ATOM	985	CB	GLU	S	497	38.105	42.477	32.547	1.00	0.00
ATOM	986	CG	GLU	S	497	39.519	41.866	32.584	1.00	0.00
ATOM	987	CD	GLU	S	497	40.227	42.044	33.917	1.00	0.00
ATOM	988	OE1	GLU	S	497	39.593	41.946	34.959	1.00	0.00

ATOM	989	OE2	GLU	S	497	41.432	42.278	33.917	1.00	0.00
ATOM	990	H	GLU	S	497	37.776	39.884	32.109	1.00	0.00
ATOM	991	N	TRP	S	498	35.240	41.398	31.465	1.00	0.00
ATOM	992	CA	TRP	S	498	33.956	41.498	30.777	1.00	0.00
ATOM	993	C	TRP	S	498	33.936	40.243	29.905	1.00	0.00
ATOM	994	O	TRP	S	498	35.003	39.779	29.509	1.00	0.00
ATOM	995	CB	TRP	S	498	34.004	42.780	29.925	1.00	0.00
ATOM	996	CG	TRP	S	498	32.685	43.096	29.499	1.00	0.00
ATOM	997	CD1	TRP	S	498	31.440	42.782	29.300	1.00	0.00
ATOM	998	CD2	TRP	S	498	32.458	44.788	29.182	1.00	0.00
ATOM	999	NE1	TRP	S	498	30.492	43.674	28.900	1.00	0.00
ATOM	1000	CE2	TRP	S	498	31.076	44.929	28.815	1.00	0.00
ATOM	1001	CE3	TRP	S	498	33.305	45.916	29.164	1.00	0.00
ATOM	1002	CZ2	TRP	S	498	30.568	46.194	28.448	1.00	0.00
ATOM	1003	CZ3	TRP	S	498	32.785	47.172	28.787	1.00	0.00
ATOM	1004	CH2	TRP	S	498	31.425	47.313	28.435	1.00	0.00
ATOM	1005	H	TRP	S	498	35.880	40.725	31.096	1.00	0.00
ATOM	1006	HE1	TRP	S	498	29.557	43.437	28.700	1.00	0.00
ATOM	1007	N	ASN	S	499	32.758	39.714	29.566	1.00	0.00
ATOM	1008	CA	ASN	S	499	32.805	38.369	28.362	1.00	0.00
ATOM	1009	C	ASN	S	499	32.691	39.767	27.138	1.00	0.00
ATOM	1010	O	ASN	S	499	32.796	40.981	27.306	1.00	0.00
ATOM	1011	CB	ASN	S	499	31.752	37.757	28.408	1.00	0.00
ATOM	1012	CG	ASN	S	499	32.305	36.575	29.190	1.00	0.00
ATOM	1013	OD1	ASN	S	499	32.180	36.466	30.413	1.00	0.00
ATOM	1014	ND2	ASN	S	499	32.950	35.681	28.431	1.00	0.00
ATOM	1015	H	ASN	S	499	31.940	40.118	29.906	1.00	0.00
ATOM	1016	1HD2	ASN	S	499	33.356	34.846	28.794	1.00	0.00
ATOM	1017	2HD2	ASN	S	499	33.006	35.809	27.434	1.00	0.00
ATOM	1018	N	GLY	S	500	32.490	39.180	25.943	1.00	0.00
ATOM	1019	CA	GLY	S	500	31.984	39.907	24.767	1.00	0.00
ATOM	1020	C	GLY	S	500	32.716	41.156	24.297	1.00	0.00
ATOM	1021	O	GLY	S	500	33.520	41.169	23.361	1.00	0.00
ATOM	1022	H	GLY	S	500	32.683	38.198	25.848	1.00	0.00
ATOM	1023	N	MET	S	501	32.364	42.247	24.990	1.00	0.00
ATOM	1024	CA	MET	S	501	32.956	43.558	24.736	1.00	0.00
ATOM	1025	C	MET	S	501	34.433	43.655	25.046	1.00	0.00
ATOM	1026	O	MET	S	501	35.164	44.443	24.457	1.00	0.00
ATOM	1027	CB	MET	S	501	32.216	44.625	25.534	1.00	0.00
ATOM	1028	CG	MET	S	501	31.048	45.302	24.820	1.00	0.00
ATOM	1029	SD	MET	S	501	31.600	46.529	23.626	1.00	0.00
ATOM	1030	CE	MET	S	501	29.975	47.174	23.209	1.00	0.00
ATOM	1031	H	MET	S	501	31.791	42.053	25.789	1.00	0.00
ATOM	1032	N	MET	S	502	34.851	42.835	26.014	1.00	0.00
ATOM	1033	CA	MET	S	502	36.282	42.712	26.284	1.00	0.00
ATOM	1034	C	MET	S	502	36.746	41.273	26.211	1.00	0.00
ATOM	1035	O	MET	S	502	37.864	40.947	25.812	1.00	0.00
ATOM	1036	CB	MET	S	502	36.643	43.306	27.642	1.00	0.00
ATOM	1037	CG	MET	S	502	38.147	43.352	27.920	1.00	0.00
ATOM	1038	SD	MET	S	502	38.532	43.813	29.614	1.00	0.00
ATOM	1039	CE	MET	S	502	37.385	45.187	29.807	1.00	0.00
ATOM	1040	H	MET	S	502	34.174	42.197	26.376	1.00	0.00
ATOM	1041	N	GLY	S	503	35.817	40.387	26.596	1.00	0.00
ATOM	1042	CA	GLY	S	503	36.003	38.961	26.320	1.00	0.00
ATOM	1043	C	GLY	S	503	36.434	38.700	24.892	1.00	0.00
ATOM	1044	O	GLY	S	503	37.442	38.056	24.625	1.00	0.00
ATOM	1045	H	GLY	S	503	34.996	40.752	27.033	1.00	0.00
ATOM	1046	N	GLU	S	504	35.691	39.328	23.970	1.00	0.00
ATOM	1047	CA	GLU	S	504	36.150	39.086	22.609	1.00	0.00
ATOM	1048	C	GLU	S	504	37.179	40.073	22.093	1.00	0.00
ATOM	1049	O	GLU	S	504	37.780	39.895	21.033	1.00	0.00
ATOM	1050	CB	GLU	S	504	34.988	38.831	21.642	1.00	0.00

ATOM	1051	CG	GLU	S	504	33.834	37.921	22.123	1.00	0.00
ATOM	1052	CD	GLU	S	504	34.226	36.936	23.221	1.00	0.00
ATOM	1053	OE1	GLU	S	504	35.132	36.125	23.027	1.00	0.00
ATOM	1054	OE2	GLU	S	504	33.633	37.013	24.295	1.00	0.00
ATOM	1055	H	GLU	S	504	34.930	39.930	24.218	1.00	0.00
ATOM	1056	N	LEU	S	505	37.411	41.099	22.928	1.00	0.00
ATOM	1057	CA	LEU	S	505	38.707	41.754	22.779	1.00	0.00
ATOM	1058	C	LEU	S	505	39.898	40.881	23.152	1.00	0.00
ATOM	1059	O	LEU	S	505	41.013	41.113	22.684	1.00	0.00
ATOM	1060	CB	LEU	S	505	38.782	43.071	23.558	1.00	0.00
ATOM	1061	CG	LEU	S	505	38.622	44.332	22.707	1.00	0.00
ATOM	1062	CD1	LEU	S	505	37.240	44.459	22.075	1.00	0.00
ATOM	1063	CD2	LEU	S	505	38.980	45.587	23.497	1.00	0.00
ATOM	1064	H	LEU	S	505	36.889	41.220	23.766	1.00	0.00
ATOM	1065	N	LEU	S	506	39.629	39.894	24.022	1.00	0.00
ATOM	1066	CA	LEU	S	506	40.672	38.933	24.388	1.00	0.00
ATOM	1067	C	LEU	S	506	40.618	37.641	23.584	1.00	0.00
ATOM	1068	O	LEU	S	506	41.566	36.862	23.520	1.00	0.00
ATOM	1069	CB	LEU	S	506	40.618	38.639	25.890	1.00	0.00
ATOM	1070	CG	LEU	S	506	40.759	39.887	26.771	1.00	0.00
ATOM	1071	CD1	LEU	S	506	40.437	39.587	28.235	1.00	0.00
ATOM	1072	CD2	LEU	S	506	42.117	40.574	26.606	1.00	0.00
ATOM	1073	H	LEU	S	506	38.673	39.736	24.260	1.00	0.00
ATOM	1074	N	SER	S	507	39.466	37.438	22.920	1.00	0.00
ATOM	1075	CA	SER	S	507	39.417	36.267	22.046	1.00	0.00
ATOM	1076	C	SER	S	507	39.655	36.574	20.575	1.00	0.00
ATOM	1077	O	SER	S	507	39.881	35.963	19.755	1.00	0.00
ATOM	1078	CB	SER	S	507	38.136	35.443	22.246	1.00	0.00
ATOM	1079	OG	SER	S	507	37.864	35.223	23.644	1.00	0.00
ATOM	1080	H	SER	S	507	38.677	38.015	23.122	1.00	0.00
ATOM	1081	HG	SER	S	507	37.087	35.763	23.831	1.00	0.00
ATOM	1082	N	GLY	S	508	39.638	37.874	20.242	1.00	0.00
ATOM	1083	CA	GLY	S	508	40.126	38.161	18.897	1.00	0.00
ATOM	1084	C	GLY	S	508	39.047	38.459	17.877	1.00	0.00
ATOM	1085	O	GLY	S	508	39.306	39.092	16.857	1.00	0.00
ATOM	1086	H	GLY	S	508	39.259	38.585	20.832	1.00	0.00
ATOM	1087	N	GLN	S	509	37.817	38.029	18.211	1.00	0.00
ATOM	1088	CA	GLN	S	509	36.652	38.500	17.459	1.00	0.00
ATOM	1089	C	GLN	S	509	36.620	40.014	17.272	1.00	0.00
ATOM	1090	O	GLN	S	509	36.167	40.532	16.251	1.00	0.00
ATOM	1091	CB	GLN	S	509	35.350	38.078	18.152	1.00	0.00
ATOM	1092	CG	GLN	S	509	34.857	36.629	18.019	1.00	0.00
ATOM	1093	CD	GLN	S	509	35.827	35.614	18.594	1.00	0.00
ATOM	1094	OE1	GLN	S	509	36.628	35.034	17.870	1.00	0.00
ATOM	1095	NE2	GLN	S	509	35.690	35.369	19.905	1.00	0.00
ATOM	1096	H	GLN	S	509	37.723	37.391	18.972	1.00	0.00
ATOM	1097	1HE2	GLN	S	509	36.196	34.595	20.296	1.00	0.00
ATOM	1098	2HE2	GLN	S	509	35.067	35.891	20.499	1.00	0.00
ATOM	1099	N	ALA	S	510	37.103	40.688	18.327	1.00	0.00
ATOM	1100	CA	ALA	S	510	37.127	42.141	18.383	1.00	0.00
ATOM	1101	C	ALA	S	510	38.423	42.687	18.956	1.00	0.00
ATOM	1102	O	ALA	S	510	39.100	42.089	19.800	1.00	0.00
ATOM	1103	CB	ALA	S	510	35.950	42.648	19.217	1.00	0.00
ATOM	1104	H	ALA	S	510	37.513	40.172	19.080	1.00	0.00
ATOM	1105	N	ASP	S	511	38.741	43.871	18.438	1.00	0.00
ATOM	1106	CA	ASP	S	511	39.993	44.506	18.835	1.00	0.00
ATOM	1107	C	ASP	S	511	39.741	45.753	19.657	1.00	0.00
ATOM	1108	O	ASP	S	511	40.434	46.132	20.604	1.00	0.00
ATOM	1109	CB	ASP	S	511	40.796	44.925	17.602	1.00	0.00
ATOM	1110	CG	ASP	S	511	40.974	43.821	16.580	1.00	0.00
ATOM	1111	OD1	ASP	S	511	42.005	43.165	16.575	1.00	0.00
ATOM	1112	OD2	ASP	S	511	40.093	43.623	15.757	1.00	0.00

ATOM	1113 H	ASP	S	511	38.130	44.283	17.765	1.00	0.00
ATOM	1114 N	MET	S	512	38.698	46.433	19.191	1.00	0.00
ATOM	1115 CA	MET	S	512	38.498	47.774	19.688	1.00	0.00
ATOM	1116 C	MET	S	512	37.080	48.092	20.059	1.00	0.00
ATOM	1117 O	MET	S	512	36.129	48.128	19.268	1.00	0.00
ATOM	1118 CB	MET	S	512	39.022	48.805	18.693	1.00	0.00
ATOM	1119 CG	MET	S	512	38.666	48.536	17.234	1.00	0.00
ATOM	1120 SD	MET	S	512	38.992	49.967	16.203	1.00	0.00
ATOM	1121 CE	MET	S	512	40.631	50.353	16.809	1.00	0.00
ATOM	1122 H	MET	S	512	38.125	46.075	18.459	1.00	0.00
ATOM	1123 N	ILE	S	513	36.941	48.420	21.349	1.00	0.00
ATOM	1124 CA	ILE	S	513	35.709	49.155	21.593	1.00	0.00
ATOM	1125 C	ILE	S	513	35.877	50.555	21.027	1.00	0.00
ATOM	1126 O	ILE	S	513	36.906	51.194	21.227	1.00	0.00
ATOM	1127 CB	ILE	S	513	35.287	49.151	23.065	1.00	0.00
ATOM	1128 CG1	ILE	S	513	35.569	47.784	23.703	1.00	0.00
ATOM	1129 CG2	ILE	S	513	33.794	49.489	23.123	1.00	0.00
ATOM	1130 CD1	ILE	S	513	35.265	47.710	25.201	1.00	0.00
ATOM	1131 H	ILE	S	513	37.770	48.460	21.915	1.00	0.00
ATOM	1132 N	VAL	S	514	34.860	50.884	20.199	1.00	0.00
ATOM	1133 CA	VAL	S	514	34.806	52.218	19.590	1.00	0.00
ATOM	1134 C	VAL	S	514	33.434	52.836	19.742	1.00	0.00
ATOM	1135 O	VAL	S	514	33.302	54.054	19.792	1.00	0.00
ATOM	1136 CB	VAL	S	514	35.221	52.237	18.114	1.00	0.00
ATOM	1137 CG1	VAL	S	514	35.323	53.658	17.552	1.00	0.00
ATOM	1138 CG2	VAL	S	514	36.517	51.478	17.891	1.00	0.00
ATOM	1139 H	VAL	S	514	34.155	50.182	20.070	1.00	0.00
ATOM	1140 N	ALA	S	515	32.431	51.930	19.924	1.00	0.00
ATOM	1141 CA	ALA	S	515	31.175	52.379	20.535	1.00	0.00
ATOM	1142 C	ALA	S	515	31.484	53.244	21.729	1.00	0.00
ATOM	1143 O	ALA	S	515	32.246	52.778	22.579	1.00	0.00
ATOM	1144 CB	ALA	S	515	30.421	51.184	21.094	1.00	0.00
ATOM	1145 H	ALA	S	515	32.516	50.969	19.660	1.00	0.00
ATOM	1146 N	PRO	S	516	30.967	54.505	21.705	1.00	0.00
ATOM	1147 CA	PRO	S	516	31.407	55.539	22.650	1.00	0.00
ATOM	1148 C	PRO	S	516	31.682	55.021	24.041	1.00	0.00
ATOM	1149 O	PRO	S	516	30.795	54.749	24.854	1.00	0.00
ATOM	1150 CB	PRO	S	516	30.288	56.574	22.536	1.00	0.00
ATOM	1151 CG	PRO	S	516	29.910	56.506	21.057	1.00	0.00
ATOM	1152 CD	PRO	S	516	29.985	55.013	20.748	1.00	0.00
ATOM	1153 N	LEU	S	517	32.982	54.798	24.236	1.00	0.00
ATOM	1154 CA	LEU	S	517	33.429	53.996	25.364	1.00	0.00
ATOM	1155 C	LEU	S	517	33.909	54.921	26.432	1.00	0.00
ATOM	1156 O	LEU	S	517	34.367	56.031	26.176	1.00	0.00
ATOM	1157 CB	LEU	S	517	34.550	53.045	24.938	1.00	0.00
ATOM	1158 CG	LEU	S	517	34.978	52.093	26.058	1.00	0.00
ATOM	1159 CD1	LEU	S	517	33.905	51.060	26.395	1.00	0.00
ATOM	1160 CD2	LEU	S	517	36.344	51.483	25.801	1.00	0.00
ATOM	1161 H	LEU	S	517	33.647	55.225	23.619	1.00	0.00
ATOM	1162 N	THR	S	518	33.738	54.470	27.667	1.00	0.00
ATOM	1163 CA	THR	S	518	34.288	55.278	28.749	1.00	0.00
ATOM	1164 C	THR	S	518	35.678	54.736	29.036	1.00	0.00
ATOM	1165 O	THR	S	518	35.893	53.543	28.802	1.00	0.00
ATOM	1166 CB	THR	S	518	33.327	55.136	29.926	1.00	0.00
ATOM	1167 OG1	THR	S	518	32.044	54.658	29.457	1.00	0.00
ATOM	1168 CG2	THR	S	518	33.102	56.482	30.607	1.00	0.00
ATOM	1169 H	THR	S	518	33.465	53.513	27.815	1.00	0.00
ATOM	1170 HG1	THR	S	518	32.146	53.713	29.268	1.00	0.00
ATOM	1171 N	ILE	S	519	36.629	55.579	29.477	1.00	0.00
ATOM	1172 CA	ILE	S	519	37.876	54.878	29.799	1.00	0.00
ATOM	1173 C	ILE	S	519	37.926	54.432	31.242	1.00	0.00
ATOM	1174 O	ILE	S	519	38.350	55.170	32.133	1.00	0.00

ATOM	1175 CB	ILE	S	519	39.148	55.657	29.433	1.00	0.00
ATOM	1176 CG1	ILE	S	519	39.143	56.077	27.967	1.00	0.00
ATOM	1177 CG2	ILE	S	519	40.404	54.813	29.708	1.00	0.00
ATOM	1178 CD1	ILE	S	519	40.346	56.975	27.687	1.00	0.00
ATOM	1179 H	ILE	S	519	36.471	56.570	29.541	1.00	0.00
ATOM	1180 N	ASN	S	520	37.463	53.190	31.410	1.00	0.00
ATOM	1181 CA	ASN	S	520	37.777	52.505	32.657	1.00	0.00
ATOM	1182 C	ASN	S	520	39.258	52.338	32.792	1.00	0.00
ATOM	1183 O	ASN	S	520	39.928	51.986	31.819	1.00	0.00
ATOM	1184 CB	ASN	S	520	37.170	51.118	32.690	1.00	0.00
ATOM	1185 CG	ASN	S	520	35.811	51.199	33.303	1.00	0.00
ATOM	1186 OD1	ASN	S	520	34.765	51.198	32.661	1.00	0.00
ATOM	1187 ND2	ASN	S	520	35.844	51.266	34.624	1.00	0.00
ATOM	1188 H	ASN	S	520	37.109	52.720	30.603	1.00	0.00
ATOM	1189 1HD2	ASN	S	520	34.970	51.383	35.093	1.00	0.00
ATOM	1190 2HD2	ASN	S	520	36.680	51.229	35.171	1.00	0.00
ATOM	1191 N	ASN	S	521	39.723	52.578	34.025	1.00	0.00
ATOM	1192 CA	ASN	S	521	41.154	52.386	34.264	1.00	0.00
ATOM	1193 C	ASN	S	521	41.570	50.954	34.142	1.00	0.00
ATOM	1194 O	ASN	S	521	42.686	50.634	33.756	1.00	0.00
ATOM	1195 CB	ASN	S	521	41.621	52.830	35.645	1.00	0.00
ATOM	1196 CG	ASN	S	521	41.265	54.263	35.925	1.00	0.00
ATOM	1197 OD1	ASN	S	521	40.844	54.594	37.027	1.00	0.00
ATOM	1198 ND2	ASN	S	521	41.424	55.107	34.893	1.00	0.00
ATOM	1199 H	ASN	S	521	39.069	52.659	34.773	1.00	0.00
ATOM	1200 1HD2	ASN	S	521	41.150	56.063	35.029	1.00	0.00
ATOM	1201 2HD2	ASN	S	521	41.747	54.756	34.011	1.00	0.00
ATOM	1202 N	GLU	S	522	40.602	50.104	34.481	1.00	0.00
ATOM	1203 CA	GLU	S	522	40.763	58.653	34.431	1.00	0.00
ATOM	1204 C	GLU	S	522	40.928	48.141	33.014	1.00	0.00
ATOM	1205 O	GLU	S	522	41.694	47.218	32.720	1.00	0.00
ATOM	1206 CB	GLU	S	522	39.592	47.980	35.150	1.00	0.00
ATOM	1207 CG	GLU	S	522	39.434	48.372	36.632	1.00	0.00
ATOM	1208 CD	GLU	S	522	39.027	49.826	36.806	1.00	0.00
ATOM	1209 OE1	GLU	S	522	28.142	50.302	36.099	1.00	0.00
ATOM	1210 OE2	GLU	S	522	39.629	50.517	37.619	1.00	0.00
ATOM	1211 H	GLU	S	522	39.738	50.500	34.785	1.00	0.00
ATOM	1212 N	ARG	S	523	40.230	48.882	32.126	1.00	0.00
ATOM	1213 CA	ARG	S	523	40.579	48.782	30.716	1.00	0.00
ATOM	1214 C	ARG	S	523	41.978	49.290	30.457	1.00	0.00
ATOM	1215 O	ARG	S	523	42.842	48.510	30.084	1.00	0.00
ATOM	1216 CB	ARG	S	523	39.532	49.457	29.830	1.00	0.00
ATOM	1217 CG	ARG	S	523	38.180	48.804	30.091	1.00	0.00
ATOM	1218 CD	ARG	S	523	37.008	49.394	29.317	1.00	0.00
ATOM	1219 NE	ARG	S	523	35.768	48.936	29.939	1.00	0.00
ATOM	1220 CZ	ARG	S	523	34.752	49.798	30.149	1.00	0.00
ATOM	1221 NH1	ARG	S	523	34.808	51.047	29.702	1.00	0.00
ATOM	1222 NH2	ARG	S	523	33.672	49.374	30.799	1.00	0.00
ATOM	1223 H	ARG	S	523	39.672	49.608	32.512	1.00	0.00
ATOM	1224 HE	ARG	S	523	35.690	47.988	30.260	1.00	0.00
ATOM	1225 1HH1	ARG	S	523	34.036	51.669	29.816	1.00	0.00
ATOM	1226 2HH1	ARG	S	523	35.608	51.442	29.256	1.00	0.00
ATOM	1227 1HH2	ARG	S	523	32.969	50.145	31.042	1.00	0.00
ATOM	1228 2HH2	ARG	S	523	33.535	48.419	31.065	1.00	0.00
ATOM	1229 N	ALA	S	524	42.220	50.580	30.756	1.00	0.00
ATOM	1230 CA	ALA	S	524	43.587	51.111	30.626	1.00	0.00
ATOM	1231 C	ALA	S	524	44.744	50.245	31.144	1.00	0.00
ATOM	1232 O	ALA	S	524	45.847	50.288	30.610	1.00	0.00
ATOM	1233 CB	ALA	S	524	43.689	52.505	31.249	1.00	0.00
ATOM	1234 H	ALA	S	524	41.473	51.161	31.073	1.00	0.00
ATOM	1235 N	GLN	S	525	44.416	49.407	32.144	1.00	0.00
ATOM	1236 CA	GLN	S	525	45.237	48.275	32.570	1.00	0.00

ATOM	1237 C	GLN	S	525	45.326	47.166	31.521	1.00	0.00
ATOM	1238 O	GLN	S	525	46.327	47.068	30.813	1.00	0.00
ATOM	1239 CB	GLN	S	525	44.736	47.773	33.933	1.00	0.00
ATOM	1240 CG	GLN	S	525	44.899	48.831	35.033	1.00	0.00
ATOM	1241 CD	GLN	S	525	43.978	48.563	36.213	1.00	0.00
ATOM	1242 OE1	GLN	S	525	43.282	47.555	36.314	1.00	0.00
ATOM	1243 NE2	GLN	S	525	46.001	49.533	37.133	1.00	0.00
ATOM	1244 H	GLN	S	525	43.464	49.490	32.435	1.00	0.00
ATOM	1245 1HE2	GLN	S	525	43.393	49.444	37.924	1.00	0.00
ATOM	1246 2HE2	GLN	S	525	44.621	50.307	37.028	1.00	0.00
ATOM	1247 N	TYR	S	526	44.271	46.342	31.411	1.00	0.00
ATOM	1248 CA	TYR	S	526	44.397	45.176	30.528	1.00	0.00
ATOM	1249 C	TYR	S	526	44.513	45.432	29.024	1.00	0.00
ATOM	1250 O	TYR	S	526	45.223	44.753	28.286	1.00	0.00
ATOM	1251 CB	TYR	S	526	43.263	44.187	30.824	1.00	0.00
ATOM	1252 CG	TYR	S	526	43.736	42.746	30.894	1.00	0.00
ATOM	1253 CD1	TYR	S	526	42.751	41.739	30.902	1.00	0.00
ATOM	1254 CD2	TYR	S	526	45.112	42.431	30.979	1.00	0.00
ATOM	1255 CE1	TYR	S	526	43.138	40.398	31.053	1.00	0.00
ATOM	1256 CE2	TYR	S	526	45.503	41.091	31.124	1.00	0.00
ATOM	1257 CZ	TYR	S	526	44.508	40.096	31.180	1.00	0.00
ATOM	1258 OH	TYR	S	526	44.892	38.780	31.363	1.00	0.00
ATOM	1259 H	TYR	S	526	43.457	46.506	31.971	1.00	0.00
ATOM	1260 HH	TYR	S	526	44.780	38.404	30.487	1.00	0.00
ATOM	1261 N	ILE	S	527	43.739	46.442	28.603	1.00	0.00
ATOM	1262 CA	ILE	S	527	43.698	46.928	27.220	1.00	0.00
ATOM	1263 C	ILE	S	527	43.973	48.433	27.181	1.00	0.00
ATOM	1264 O	ILE	S	527	44.330	49.028	28.197	1.00	0.00
ATOM	1265 CB	ILE	S	527	42.360	46.549	26.566	1.00	0.00
ATOM	1266 CG1	ILE	S	527	41.195	46.911	27.490	1.00	0.00
ATOM	1267 CG2	ILE	S	527	42.359	45.050	26.242	1.00	0.00
ATOM	1268 CD1	ILE	S	527	39.829	46.475	26.968	1.00	0.00
ATOM	1269 H	ILE	S	527	43.188	46.902	29.294	1.00	0.00
ATOM	1270 N	GLU	S	528	43.854	49.037	25.998	1.00	0.00
ATOM	1271 CA	GLU	S	528	44.150	50.461	25.901	1.00	0.00
ATOM	1272 C	GLU	S	528	43.247	51.168	24.898	1.00	0.00
ATOM	1273 O	GLU	S	528	42.828	50.587	23.896	1.00	0.00
ATOM	1274 CB	GLU	S	528	45.625	50.638	25.559	1.00	0.00
ATOM	1275 CG	GLU	S	528	46.353	51.685	26.418	1.00	0.00
ATOM	1276 CD	GLU	S	528	45.696	53.031	26.214	1.00	0.00
ATOM	1277 OE1	GLU	S	528	44.958	53.471	27.084	1.00	0.00
ATOM	1278 OE2	GLU	S	528	45.880	53.627	25.159	1.00	0.00
ATOM	1279 H	GLU	S	528	43.558	48.513	25.202	1.00	0.00
ATOM	1280 N	PHE	S	529	42.943	52.442	25.200	1.00	0.00
ATOM	1281 CA	PHE	S	529	42.027	53.226	24.362	1.00	0.00
ATOM	1282 C	PHE	S	529	42.594	54.578	23.924	1.00	0.00
ATOM	1283 O	PHE	S	529	43.746	54.632	23.481	1.00	0.00
ATOM	1284 CB	PHE	S	529	40.641	53.291	25.025	1.00	0.00
ATOM	1285 CG	PHE	S	529	40.018	51.918	24.964	1.00	0.00
ATOM	1286 CD1	PHE	S	529	40.028	51.101	26.114	1.00	0.00
ATOM	1287 CD2	PHE	S	529	39.467	51.463	23.746	1.00	0.00
ATOM	1288 CE1	PHE	S	529	39.521	49.792	26.028	1.00	0.00
ATOM	1289 CE2	PHE	S	529	38.962	50.153	23.661	1.00	0.00
ATOM	1290 CZ	PHE	S	529	39.013	49.323	24.798	1.00	0.00
ATOM	1291 H	PHE	S	529	43.379	52.870	25.995	1.00	0.00
ATOM	1292 N	SER	S	530	41.814	55.664	24.049	1.00	0.00
ATOM	1293 CA	SER	S	530	42.301	56.984	23.518	1.00	0.00
ATOM	1294 C	SER	S	530	41.809	58.113	24.321	1.00	0.00
ATOM	1295 O	SER	S	530	40.727	58.104	24.905	1.00	0.00
ATOM	1296 CB	SER	S	530	41.853	57.145	22.075	1.00	0.00
ATOM	1297 OG	SER	S	530	42.555	56.289	21.156	1.00	0.00
ATOM	1298 H	SER	S	530	40.883	55.600	24.391	1.00	0.00

ATOM	1299 HG	SER	S	530	42.517	56.792	20.347	1.00	0.00
ATOM	1300 N	LYS	S	531	42.663	59.151	24.339	1.00	0.00
ATOM	1301 CA	LYS	S	531	42.189	60.389	24.943	1.00	0.00
ATOM	1302 C	LYS	S	531	41.774	61.528	24.019	1.00	0.00
ATOM	1303 O	LYS	S	531	40.713	62.085	24.263	1.00	0.00
ATOM	1304 CB	LYS	S	531	43.070	60.858	26.111	1.00	0.00
ATOM	1305 CG	LYS	S	531	42.361	61.058	27.470	1.00	0.00
ATOM	1306 CD	LYS	S	531	41.487	62.311	27.687	1.00	0.00
ATOM	1307 CE	LYS	S	531	40.019	62.235	27.238	1.00	0.00
ATOM	1308 NZ	LYS	S	531	39.316	63.464	27.624	1.00	0.00
ATOM	1309 H	LYS	S	531	43.507	59.140	23.800	1.00	0.00
ATOM	1310 1HZ	LYS	S	531	38.343	63.428	27.271	1.00	0.00
ATOM	1311 2HZ	LYS	S	531	39.247	63.600	28.657	1.00	0.00
ATOM	1312 3HZ	LYS	S	531	39.795	64.281	27.210	1.00	0.00
ATOM	1313 N	PRO	S	532	42.554	61.918	22.981	1.00	0.00
ATOM	1314 CA	PRO	S	532	41.987	62.910	22.048	1.00	0.00
ATOM	1315 C	PRO	S	532	41.125	62.297	20.940	1.00	0.00
ATOM	1316 O	PRO	S	532	41.182	62.659	19.759	1.00	0.00
ATOM	1317 CB	PRO	S	532	43.251	63.610	21.546	1.00	0.00
ATOM	1318 CG	PRO	S	532	44.323	62.521	21.526	1.00	0.00
ATOM	1319 CD	PRO	S	532	43.942	61.586	22.672	1.00	0.00
ATOM	1320 N	PHE	S	533	40.317	61.296	21.346	1.00	0.00
ATOM	1321 CA	PHE	S	533	39.401	60.803	20.322	1.00	0.00
ATOM	1322 C	PHE	S	533	38.207	61.716	20.115	1.00	0.00
ATOM	1323 O	PHE	S	533	38.250	62.661	19.330	1.00	0.00
ATOM	1324 CB	PHE	S	533	39.005	59.331	20.560	1.00	0.00
ATOM	1325 CG	PHE	S	533	38.109	58.800	19.542	1.00	0.00
ATOM	1326 CD1	PHE	S	533	36.900	58.161	19.803	1.00	0.00
ATOM	1327 CD2	PHE	S	533	38.479	58.950	18.094	1.00	0.00
ATOM	1328 CE1	PHE	S	533	36.050	57.669	18.795	1.00	0.00
ATOM	1329 CE2	PHE	S	533	37.630	58.459	17.083	1.00	0.00
ATOM	1330 CZ	PHE	S	533	36.423	57.825	17.444	1.00	0.00
ATOM	1331 H	PHE	S	533	40.157	61.205	22.327	1.00	0.00
ATOM	1332 N	LYS	S	534	37.111	61.380	20.816	1.00	0.00
ATOM	1333 CA	LYS	S	534	35.919	32.191	20.634	1.00	0.00
ATOM	1334 C	LYS	S	534	35.958	63.348	21.607	1.00	0.00
ATOM	1335 O	LYS	S	534	35.812	63.121	22.809	1.00	0.00
ATOM	1336 CB	LYS	S	534	34.698	61.275	20.818	1.00	0.00
ATOM	1337 CG	LYS	S	534	33.347	61.986	20.775	1.00	0.00
ATOM	1338 CD	LYS	S	534	33.201	62.809	19.503	1.00	0.00
ATOM	1339 CE	LYS	S	534	32.094	63.839	19.641	1.00	0.00
ATOM	1340 NZ	LYS	S	534	32.370	64.947	18.736	1.00	0.00
ATOM	1341 H	LYS	S	534	37.099	60.595	21.442	1.00	0.00
ATOM	1342 1HZ	LYS	S	534	33.380	65.198	18.751	1.00	0.00
ATOM	1343 2HZ	LYS	S	534	32.167	64.628	17.777	1.00	0.00
ATOM	1344 3HZ	LYS	S	534	31.800	65.789	18.908	1.00	0.00
ATOM	1345 N	TYR	S	535	36.213	64.537	21.039	1.00	0.00
ATOM	1346 CA	TYR	S	535	36.138	65.804	21.773	1.00	0.00
ATOM	1347 C	TYR	S	535	36.295	65.779	23.303	1.00	0.00
ATOM	1348 O	TYR	S	535	37.391	65.841	23.869	1.00	0.00
ATOM	1349 CB	TYR	S	535	34.809	66.548	21.271	1.00	0.00
ATOM	1350 CG	TYR	S	535	35.095	68.045	21.266	1.00	0.00
ATOM	1351 CD1	TYR	S	535	36.159	68.605	20.526	1.00	0.00
ATOM	1352 CD2	TYR	S	535	34.200	68.842	22.003	1.00	0.00
ATOM	1353 CE1	TYR	S	535	36.352	69.996	20.555	1.00	0.00
ATOM	1354 CE2	TYR	S	535	34.393	70.231	20.025	1.00	0.00
ATOM	1355 CZ	TYR	S	535	35.479	70.792	21.323	1.00	0.00
ATOM	1356 OH	TYR	S	535	35.712	72.156	21.409	1.00	0.00
ATOM	1357 H	TYR	S	535	36.422	64.539	20.060	1.00	0.00
ATOM	1358 HH	TYR	S	535	35.003	72.544	21.932	1.00	0.00
ATOM	1359 N	GLN	S	536	35.154	65.689	24.015	1.00	0.00
ATOM	1360 CA	GLN	S	536	35.198	65.687	25.488	1.00	0.00

ATOM	1361 C	GLN	S	536	34.272	64.623	26.067	1.00	0.00
ATOM	1362 O	GLN	S	536	33.306	64.240	25.405	1.00	0.00
ATOM	1363 CB	GLN	S	536	34.736	67.045	26.032	1.00	0.00
ATOM	1364 CG	GLN	S	536	35.484	68.275	25.306	1.00	0.00
ATOM	1365 CD	GLN	S	536	34.792	69.532	25.996	1.00	0.00
ATOM	1366 OE1	GLN	S	536	34.000	69.529	26.937	1.00	0.00
ATOM	1367 NE2	GLN	S	536	35.120	70.641	25.332	1.00	0.00
ATOM	1368 H	GLN	S	536	34.282	65.547	23.543	1.00	0.00
ATOM	1369 1HE2	GLN	S	536	34.658	71.515	25.490	1.00	0.00
ATOM	1370 2HE2	GLN	S	536	35.798	70.598	24.601	1.00	0.00
ATOM	1371 N	GLY	S	537	34.523	64.191	27.323	1.00	0.00
ATOM	1372 CA	GLY	S	537	33.513	63.349	27.992	1.00	0.00
ATOM	1373 C	GLY	S	537	33.575	63.366	29.519	1.00	0.00
ATOM	1374 O	GLY	S	537	34.373	62.671	30.158	1.00	0.00
ATOM	1375 H	GLY	S	537	35.371	64.450	27.781	1.00	0.00
ATOM	1376 N	LEU	S	538	32.734	64.246	30.087	1.00	0.00
ATOM	1377 CA	LEU	S	538	32.935	64.570	31.497	1.00	0.00
ATOM	1378 C	LEU	S	538	31.743	64.293	32.397	1.00	0.00
ATOM	1379 O	LEU	S	538	30.647	63.918	31.969	1.00	0.00
ATOM	1380 CB	LEU	S	538	33.417	66.021	31.640	1.00	0.00
ATOM	1381 CG	LEU	S	538	34.934	66.213	31.621	1.00	0.00
ATOM	1382 CD1	LEU	S	538	35.600	65.240	32.585	1.00	0.00
ATOM	1383 CD2	LEU	S	538	35.554	66.173	30.224	1.00	0.00
ATOM	1384 H	LEU	S	538	32.075	64.788	29.570	1.00	0.00
ATOM	1385 N	THR	S	539	32.030	64.465	33.701	1.00	0.00
ATOM	1386 CA	THR	S	539	31.038	64.027	34.676	1.00	0.00
ATOM	1387 C	THR	S	539	29.992	65.072	35.029	1.00	0.00
ATOM	1388 O	THR	S	539	30.280	66.230	35.334	1.00	0.00
ATOM	1389 CB	THR	S	539	31.740	63.452	35.913	1.00	0.00
ATOM	1390 OG1	THR	S	539	32.950	63.775	35.522	1.00	0.00
ATOM	1391 CG2	THR	S	539	30.848	62.447	36.642	1.00	0.00
ATOM	1392 H	THR	S	539	32.798	65.061	33.932	1.00	0.00
ATOM	1393 HG1	THR	S	539	33.585	63.450	35.257	1.00	0.00
ATOM	1394 N	ILE	S	540	28.742	64.585	34.939	1.00	0.00
ATOM	1395 CA	ILE	S	540	27.622	65.497	34.754	1.00	0.00
ATOM	1396 C	ILE	S	540	26.944	66.158	35.961	1.00	0.00
ATOM	1397 O	ILE	S	540	26.404	65.548	36.899	1.00	0.00
ATOM	1398 CB	ILE	S	540	26.665	64.802	33.767	1.00	0.00
ATOM	1399 CG1	ILE	S	540	26.036	65.745	32.758	1.00	0.00
ATOM	1400 CG2	ILE	S	540	25.607	63.955	34.463	1.00	0.00
ATOM	1401 CD1	ILE	S	540	26.971	65.932	31.568	1.00	0.00
ATOM	1402 H	ILE	S	540	28.599	63.617	34.765	1.00	0.00
ATOM	1403 N	LEU	S	541	26.982	67.482	35.864	1.00	0.00
ATOM	1404 CA	LEU	S	541	26.266	68.353	36.782	1.00	0.00
ATOM	1405 C	LEU	S	541	24.836	68.705	36.423	1.00	0.00
ATOM	1406 O	LEU	S	541	24.290	69.690	36.912	1.00	0.00
ATOM	1407 CB	LEU	S	541	27.035	69.647	36.999	1.00	0.00
ATOM	1408 CG	LEU	S	541	27.872	69.601	38.267	1.00	0.00
ATOM	1409 CD1	LEU	S	541	29.126	68.738	38.121	1.00	0.00
ATOM	1410 CD2	LEU	S	541	28.146	71.011	38.768	1.00	0.00
ATOM	1411 H	LEU	S	541	27.559	67.836	35.140	1.00	0.00
ATOM	1412 N	VAL	S	542	24.204	67.886	35.577	1.00	0.00
ATOM	1413 CA	VAL	S	542	22.775	68.138	35.328	1.00	0.00
ATOM	1414 C	VAL	S	542	21.892	68.030	36.567	1.00	0.00
ATOM	1415 O	VAL	S	542	22.281	67.388	37.549	1.00	0.00
ATOM	1416 CB	VAL	S	542	22.244	67.183	34.269	1.00	0.00
ATOM	1417 CG1	VAL	S	542	22.818	67.490	32.886	1.00	0.00
ATOM	1418 CG2	VAL	S	542	22.439	65.735	34.728	1.00	0.00
ATOM	1419 H	VAL	S	542	24.787	67.195	35.153	1.00	0.00
ATOM	1420 N	LYS	S	543	20.673	68.617	36.430	1.00	0.00
ATOM	1421 CA	LYS	S	543	19.558	68.746	37.391	1.00	0.00
ATOM	1422 C	LYS	S	543	19.435	70.138	37.995	1.00	0.00

ATOM	1423 O	LYS	S	543	20.126	70.433	38.960	1.00	0.00
ATOM	1424 CB	LYS	S	543	19.575	67.732	38.553	1.00	0.00
ATOM	1425 CG	LYS	S	543	18.383	67.813	39.515	1.00	0.00
ATOM	1426 CD	LYS	S	543	18.788	67.755	40.994	1.00	0.00
ATOM	1427 CE	LYS	S	543	19.480	69.303	41.480	1.00	0.00
ATOM	1428 NZ	LYS	S	543	20.222	68.779	42.712	1.00	0.00
ATOM	1429 H	LYS	S	543	20.531	69.102	35.556	1.00	0.00
ATOM	1430 1HZ	LYS	S	543	19.746	68.943	43.618	1.00	0.00
ATOM	1431 2HZ	LYS	S	543	20.541	67.800	42.677	1.00	0.00
ATOM	1432 3HZ	LYS	S	543	21.101	69.332	42.764	1.00	0.00
ATOM	1433 N	LYS	S	544	18.500	70.954	37.456	1.00	0.00
ATOM	1434 CA	LYS	S	544	18.289	72.317	37.987	1.00	0.00
ATOM	1435 C	LYS	S	544	19.534	73.179	37.827	1.00	0.00
ATOM	1436 O	LYS	S	544	20.575	72.927	38.427	1.00	0.00
ATOM	1437 CB	LYS	S	544	17.758	72.344	39.435	1.00	0.00
ATOM	1438 CG	LYS	S	544	16.771	71.226	39.806	1.00	0.00
ATOM	1439 CD	LYS	S	544	15.485	71.170	38.982	1.00	0.00
ATOM	1440 CE	LYS	S	544	14.650	69.919	39.280	1.00	0.00
ATOM	1441 NZ	LYS	S	544	15.233	68.714	38.685	1.00	0.00
ATOM	1442 H	LYS	S	544	18.346	70.792	36.479	1.00	0.00
ATOM	1443 1HZ	LYS	S	544	14.510	68.232	38.127	1.00	0.00
ATOM	1444 2HZ	LYS	S	544	16.029	68.936	38.064	1.00	0.00
ATOM	1445 3HZ	LYS	S	544	15.549	68.078	39.440	1.00	0.00
ATOM	1446 N	GLU	S	545	19.410	74.104	36.879	1.00	0.00
ATOM	1447 CA	GLU	S	545	20.636	74.523	36.214	1.00	0.00
ATOM	1448 C	GLU	S	545	20.732	76.054	36.116	1.00	0.00
ATOM	1449 O	GLU	S	545	19.868	76.776	36.623	1.00	0.00
ATOM	1450 CB	GLU	S	545	20.750	73.690	34.909	1.00	0.00
ATOM	1451 CG	GLU	S	545	21.054	72.183	35.134	1.00	0.00
ATOM	1452 CD	GLU	S	545	20.209	71.203	34.302	1.00	0.00
ATOM	1453 OE1	GLU	S	545	19.213	70.663	34.778	1.00	0.00
ATOM	1454 OE2	GLU	S	545	20.557	70.909	33.172	1.00	0.00
ATOM	1455 H	GLU	S	545	18.513	74.251	36.477	1.00	0.00
ATOM	1456 N	ILE	S	546	21.858	76.538	35.532	1.00	0.00
ATOM	1457 CA	ILE	S	546	22.274	77.935	35.757	1.00	0.00
ATOM	1458 C	ILE	S	546	21.234	78.998	35.420	1.00	0.00
ATOM	1459 O	ILE	S	546	20.724	79.133	34.310	1.00	0.00
ATOM	1460 CB	ILE	S	546	23.632	78.256	35.082	1.00	0.00
ATOM	1461 CG1	ILE	S	546	24.759	77.346	35.573	1.00	0.00
ATOM	1462 CG2	ILE	S	546	24.065	79.718	35.275	1.00	0.00
ATOM	1463 CD1	ILE	S	546	26.069	77.508	34.796	1.00	0.00
ATOM	1464 H	ILE	S	546	22.453	75.915	35.013	1.00	0.00
ATOM	1465 N	PRO	S	547	20.906	79.788	36.469	1.00	0.00
ATOM	1466 CA	PRO	S	547	20.093	80.981	36.235	1.00	0.00
ATOM	1467 C	PRO	S	547	20.897	82.045	35.497	1.00	0.00
ATOM	1468 O	PRO	S	547	21.711	82.774	36.068	1.00	0.00
ATOM	1469 CB	PRO	S	547	19.690	81.372	27.661	1.00	0.00
ATOM	1470 CG	PRO	S	547	20.840	80.904	38.553	1.00	0.00
ATOM	1471 CD	PRO	S	547	21.308	79.630	37.863	1.00	0.00
ATOM	1472 N	ARG	S	548	20.612	82.072	34.199	1.00	0.00
ATOM	1473 CA	ARG	S	548	21.224	83.027	33.295	1.00	0.00
ATOM	1474 C	ARG	S	548	20.135	83.812	32.555	1.00	0.00
ATOM	1475 O	ARG	S	548	19.020	83.927	33.065	1.00	0.00
ATOM	1476 CB	ARG	S	548	22.264	82.286	32.404	1.00	0.00
ATOM	1477 CG	ARG	S	548	21.946	81.675	31.012	1.00	0.00
ATOM	1478 CD	ARG	S	548	20.809	80.650	30.871	1.00	0.00
ATOM	1479 NE	ARG	S	548	19.546	81.274	31.228	1.00	0.00
ATOM	1480 CZ	ARG	S	548	18.673	80.636	32.017	1.00	0.00
ATOM	1481 NH1	ARG	S	548	17.913	81.352	32.824	1.00	0.00
ATOM	1482 NH2	ARG	S	548	18.858	79.321	32.022	1.00	0.00
ATOM	1483 OXT	ARG	S	548	20.357	84.258	31.430	1.00	0.00
ATOM	1484 H	ARG	S	548	19.972	81.699	33.843	1.00	0.00

ATOM	1485 HE	ARG	S	548	19.512	82.274	31.155	1.00	0.00
ATOM	1486 1HH1	ARG	S	548	17.211	80.913	33.383	1.00	0.00
ATOM	1487 2HH1	ARG	S	548	18.085	82.343	32.896	1.00	0.00
ATOM	1488 1HH2	ARG	S	548	17.943	78.877	32.638	1.00	0.00
ATOM	1489 2HH2	ARG	S	548	19.157	78.764	31.415	1.00	0.00
ATOM	1490 N	PRO	S	660	4.523	80.852	31.091	1.00	0.00
ATOM	1491 CA	PRO	S	660	5.011	81.934	30.221	1.00	0.00
ATOM	1492 C	PRO	S	660	5.983	82.768	31.022	1.00	0.00
ATOM	1493 O	PRO	S	660	5.582	83.600	31.825	1.00	0.00
ATOM	1494 CB	PRO	S	660	3.784	82.712	29.738	1.00	0.00
ATOM	1495 CG	PRO	S	660	2.638	82.135	30.563	1.00	0.00
ATOM	1496 CD	PRO	S	660	3.090	80.705	30.840	1.00	0.00
ATOM	1497 1H	PRO	S	660	4.695	81.128	32.081	1.00	0.00
ATOM	1498 2H	PRO	S	660	5.080	79.971	30.998	1.00	0.00
ATOM	1499 N	GLU	S	661	7.260	82.412	30.806	1.00	0.00
ATOM	1500 CA	GLU	S	661	8.328	82.728	31.747	1.00	0.00
ATOM	1501 C	GLU	S	661	9.637	82.842	31.000	1.00	0.00
ATOM	1502 O	GLU	S	661	10.032	81.902	30.801	1.00	0.00
ATOM	1503 CB	GLU	S	661	8.603	81.578	32.735	1.00	0.00
ATOM	1504 CG	GLU	S	661	7.484	80.687	33.297	1.00	0.00
ATOM	1505 CD	GLU	S	661	6.800	79.788	32.266	1.00	0.00
ATOM	1506 OE1	GLU	S	661	7.183	79.697	31.102	1.00	0.00
ATOM	1507 OE2	GLU	S	661	5.786	79.207	32.603	1.00	0.00
ATOM	1508 H	GLU	S	661	7.509	81.749	30.100	1.00	0.00
ATOM	1509 N	GLU	S	662	10.331	83.960	31.249	1.00	0.00
ATOM	1510 CA	GLU	S	662	11.784	83.945	31.068	1.00	0.00
ATOM	1511 C	GLU	S	662	12.393	82.710	31.703	1.00	0.00
ATOM	1512 O	GLU	S	662	11.875	82.126	32.649	1.00	0.00
ATOM	1513 CB	GLU	S	662	12.420	85.188	31.701	1.00	0.00
ATOM	1514 CG	GLU	S	662	12.325	86.477	30.877	1.00	0.00
ATOM	1515 CD	GLU	S	662	10.886	86.801	30.527	1.00	0.00
ATOM	1516 OE1	GLU	S	662	10.086	87.049	31.428	1.00	0.00
ATOM	1517 OE2	GLU	S	662	10.562	86.789	29.345	1.00	0.00
ATOM	1518 H	GLU	S	662	9.908	84.826	31.534	1.00	0.00
ATOM	1519 N	ARG	S	663	13.525	82.272	31.145	1.00	0.00
ATOM	1520 CA	ARG	S	663	13.990	80.955	31.599	1.00	0.00
ATOM	1521 C	ARG	S	663	14.688	80.893	32.960	1.00	0.00
ATOM	1522 O	ARG	S	663	15.560	80.055	33.187	1.00	0.00
ATOM	1523 CB	ARG	S	663	14.868	80.307	30.532	1.00	0.00
ATOM	1524 CG	ARG	S	663	14.264	80.480	29.114	1.00	0.00
ATOM	1525 CD	ARG	S	663	13.133	79.155	28.940	1.00	0.00
ATOM	1526 NE	ARG	S	663	11.869	79.605	29.525	1.00	0.00
ATOM	1527 CZ	ARG	S	663	10.881	78.730	29.804	1.00	0.00
ATOM	1528 NH1	ARG	S	663	9.787	79.206	30.385	1.00	0.00
ATOM	1529 NH2	ARG	S	663	11.011	77.437	29.518	1.00	0.00
ATOM	1530 H	ARG	S	663	13.950	82.832	30.431	1.00	0.00
ATOM	1531 HE	ARG	S	663	11.700	80.582	29.683	1.00	0.00
ATOM	1532 1HH1	ARG	S	663	8.978	78.677	30.649	1.00	0.00
ATOM	1533 2HH1	ARG	S	663	9.749	80.188	30.588	1.00	0.00
ATOM	1534 1HH2	ARG	S	663	10.327	76.750	29.748	1.00	0.00
ATOM	1535 2HH2	ARG	S	663	11.822	77.061	29.050	1.00	0.00
ATOM	1536 N	ILE	S	664	14.340	81.831	33.855	1.00	0.00
ATOM	1537 CA	ILE	S	664	15.047	81.887	35.137	1.00	0.00
ATOM	1538 C	ILE	S	664	14.248	81.163	36.211	1.00	0.00
ATOM	1539 O	ILE	S	664	13.803	81.696	37.221	1.00	0.00
ATOM	1540 CB	ILE	S	664	15.351	83.342	35.528	1.00	0.00
ATOM	1541 CG1	ILE	S	664	15.803	84.151	34.306	1.00	0.00
ATOM	1542 CG2	ILE	S	664	16.428	83.374	36.620	1.00	0.00
ATOM	1543 CD1	ILE	S	664	16.001	85.639	34.601	1.00	0.00
ATOM	1544 H	ILE	S	664	13.495	82.346	33.722	1.00	0.00
ATOM	1545 N	THR	S	665	14.026	79.894	35.883	1.00	0.00
ATOM	1546 CA	THR	S	665	13.041	79.085	36.593	1.00	0.00

ATOM	1547 C	THR	S	665	13.578	78.301	37.785	1.00	0.00
ATOM	1548 O	THR	S	665	13.106	77.210	38.142	1.00	0.00
ATOM	1549 CB	THR	S	665	12.408	78.184	35.534	1.00	0.00
ATOM	1550 OG1	THR	S	665	13.403	77.832	34.554	1.00	0.00
ATOM	1551 CG2	THR	S	665	11.246	78.895	34.836	1.00	0.00
ATOM	1552 H	THR	S	665	14.459	79.500	35.074	1.00	0.00
ATOM	1553 HG1	THR	S	665	13.913	77.137	34.972	1.00	0.00
ATOM	1554 N	GLY	S	666	14.634	78.869	38.383	1.00	0.00
ATOM	1555 CA	GLY	S	666	15.262	78.155	39.488	1.00	0.00
ATOM	1556 C	GLY	S	666	16.760	78.368	39.558	1.00	0.00
ATOM	1557 O	GLY	S	666	17.291	79.440	39.259	1.00	0.00
ATOM	1558 H	GLY	S	666	14.977	79.764	38.101	1.00	0.00
ATOM	1559 N	ILE	S	667	17.430	77.279	39.977	1.00	0.00
ATOM	1560 CA	ILE	S	667	18.847	77.460	40.306	1.00	0.00
ATOM	1561 C	ILE	S	667	19.705	76.167	40.197	1.00	0.00
ATOM	1562 O	ILE	S	667	19.390	75.077	40.682	1.00	0.00
ATOM	1563 CB	ILE	S	667	18.984	78.113	41.689	1.00	0.00
ATOM	1564 CG1	ILE	S	667	20.415	78.559	42.015	1.00	0.00
ATOM	1565 CG2	ILE	S	667	18.405	77.229	42.804	1.00	0.00
ATOM	1566 CD1	ILE	S	667	20.514	79.388	43.290	1.00	0.00
ATOM	1567 H	ILE	S	667	16.966	76.450	40.283	1.00	0.00
ATOM	1568 N	ASN	S	668	20.863	76.453	39.583	1.00	0.00
ATOM	1569 CA	ASN	S	668	22.022	75.571	39.450	1.00	0.00
ATOM	1570 C	ASN	S	668	22.461	74.760	40.653	1.00	0.00
ATOM	1571 O	ASN	S	668	22.668	75.237	41.770	1.00	0.00
ATOM	1572 CB	ASN	S	668	23.219	76.390	38.954	1.00	0.00
ATOM	1573 CG	ASN	S	668	24.382	75.495	38.564	1.00	0.00
ATOM	1574 OD1	ASN	S	668	25.451	75.495	39.184	1.00	0.00
ATOM	1575 ND2	ASN	S	668	24.140	74.731	37.494	1.00	0.00
ATOM	1576 H	ASN	S	668	20.864	77.354	39.160	1.00	0.00
ATOM	1577 1HD2	ASN	S	668	24.851	74.193	37.051	1.00	0.00
ATOM	1578 2HD2	ASN	S	668	23.217	74.741	37.115	1.00	0.00
ATOM	1579 N	ASP	S	669	22.711	73.494	40.315	1.00	0.00
ATOM	1580 CA	ASP	S	669	23.577	72.615	41.099	1.00	0.00
ATOM	1581 C	ASP	S	669	25.058	72.919	40.856	1.00	0.00
ATOM	1582 O	ASP	S	669	25.492	72.974	39.700	1.00	0.00
ATOM	1583 CB	ASP	S	669	23.241	71.194	40.678	1.00	0.00
ATOM	1584 CG	ASP	S	669	23.444	70.226	41.814	1.00	0.00
ATOM	1585 OD1	ASP	S	669	22.640	69.322	41.944	1.00	0.00
ATOM	1586 OD2	ASP	S	669	24.401	70.338	42.561	1.00	0.00
ATOM	1587 H	ASP	S	669	22.264	73.158	39.483	1.00	0.00
ATOM	1588 N	PRO	S	670	25.808	73.237	41.952	1.00	0.00
ATOM	1589 CA	PRO	S	670	27.180	73.786	41.859	1.00	0.00
ATOM	1590 C	PRO	S	670	28.368	72.949	42.403	1.00	0.00
ATOM	1591 O	PRO	S	670	28.466	72.594	43.583	1.00	0.00
ATOM	1592 CB	PRO	S	670	26.972	75.062	42.673	1.00	0.00
ATOM	1593 CG	PRO	S	670	26.054	74.641	43.833	1.00	0.00
ATOM	1594 CD	PRO	S	670	25.267	73.444	43.291	1.00	0.00
ATOM	1595 N	ARG	S	671	29.364	72.702	41.522	1.00	0.00
ATOM	1596 CA	ARG	S	671	30.550	71.865	41.842	1.00	0.00
ATOM	1597 C	ARG	S	671	31.567	72.224	42.958	1.00	0.00
ATOM	1598 O	ARG	S	671	32.429	71.421	43.338	1.00	0.00
ATOM	1599 CB	ARG	S	671	31.290	71.577	40.523	1.00	0.00
ATOM	1600 CG	ARG	S	671	31.760	70.130	40.297	1.00	0.00
ATOM	1601 CD	ARG	S	671	33.097	69.783	40.951	1.00	0.00
ATOM	1602 NE	ARG	S	671	33.426	68.362	40.856	1.00	0.00
ATOM	1603 CZ	ARG	S	671	33.270	67.556	41.926	1.00	0.00
ATOM	1604 NH1	ARG	S	671	33.688	66.298	41.880	1.00	0.00
ATOM	1605 NH2	ARG	S	671	32.724	68.030	43.045	1.00	0.00
ATOM	1606 H	ARG	S	671	29.083	72.852	40.574	1.00	0.00
ATOM	1607 HE	ARG	S	671	33.913	68.068	40.029	1.00	0.00
ATOM	1608 1HH1	ARG	S	671	33.562	65.701	42.677	1.00	0.00

ATOM	1609	2HH1	ARG	S	671	34.123	65.922	41.067	1.00	0.00
ATOM	1610	1HH2	ARG	S	671	32.780	67.475	43.881	1.00	0.00
ATOM	1611	2HH2	ARG	S	671	32.275	68.931	43.074	1.00	0.00
ATOM	1612	N	LEU	S	672	31.498	73.465	43.452	1.00	0.00
ATOM	1613	CA	LEU	S	672	32.586	73.945	44.316	1.00	0.00
ATOM	1614	C	LEU	S	672	32.800	73.117	45.584	1.00	0.00
ATOM	1615	O	LEU	S	672	31.857	72.669	46.226	1.00	0.00
ATOM	1616	CB	LEU	S	672	32.345	75.422	44.650	1.00	0.00
ATOM	1617	CG	LEU	S	672	33.497	76.129	45.374	1.00	0.00
ATOM	1618	CD1	LEU	S	672	34.750	76.232	44.503	1.00	0.00
ATOM	1619	CD2	LEU	S	672	33.066	77.485	45.933	1.00	0.00
ATOM	1620	H	LEU	S	672	30.729	74.021	43.156	1.00	0.00
ATOM	1621	N	LYS	S	673	34.073	72.931	45.971	1.00	0.00
ATOM	1622	CA	LYS	S	673	34.294	72.047	47.122	1.00	0.00
ATOM	1623	C	LYS	S	673	33.605	72.423	48.435	1.00	0.00
ATOM	1624	O	LYS	S	673	33.530	71.623	49.353	1.00	0.00
ATOM	1625	CB	LYS	S	673	35.791	71.759	47.354	1.00	0.00
ATOM	1626	CG	LYS	S	673	36.085	70.401	48.032	1.00	0.00
ATOM	1627	CD	LYS	S	673	37.572	70.169	48.347	1.00	0.00
ATOM	1628	CE	LYS	S	673	37.943	68.757	48.845	1.00	0.00
ATOM	1629	NZ	LYS	S	673	37.417	68.473	50.186	1.00	0.00
ATOM	1630	H	LYS	S	673	34.802	73.218	45.354	1.00	0.00
ATOM	1631	1HZ	LYS	S	673	36.393	68.638	50.244	1.00	0.00
ATOM	1632	2HZ	LYS	S	673	37.556	67.469	50.421	1.00	0.00
ATOM	1633	3HZ	LYS	S	673	37.855	69.040	50.933	1.00	0.00
ATOM	1634	N	ASN	S	674	33.109	73.670	48.539	1.00	0.00
ATOM	1635	CA	ASN	S	674	32.342	73.971	49.762	1.00	0.00
ATOM	1636	C	ASN	S	674	30.937	73.350	49.820	1.00	0.00
ATOM	1637	O	ASN	S	674	30.663	72.579	50.740	1.00	0.00
ATOM	1638	CB	ASN	S	674	32.394	75.459	50.186	1.00	0.00
ATOM	1639	CG	ASN	S	674	33.828	75.947	50.305	1.00	0.00
ATOM	1640	OD1	ASN	S	674	34.640	75.762	49.406	1.00	0.00
ATOM	1641	ND2	ASN	S	674	34.123	76.573	51.448	1.00	0.00
ATOM	1642	H	ASN	S	674	33.223	74.333	47.794	1.00	0.00
ATOM	1643	1HD2	ASN	S	674	35.070	76.884	51.538	1.00	0.00
ATOM	1644	2HD2	ASN	S	674	33.487	76.795	52.186	1.00	0.00
ATOM	1645	N	PRO	S	675	30.064	73.624	48.791	1.00	0.00
ATOM	1646	CA	PRO	S	675	28.902	72.744	48.580	1.00	0.00
ATOM	1647	C	PRO	S	675	29.227	71.253	48.548	1.00	0.00
ATOM	1648	O	PRO	S	675	28.861	70.541	49.476	1.00	0.00
ATOM	1649	CB	PRO	S	675	28.215	73.298	47.322	1.00	0.00
ATOM	1650	CG	PRO	S	675	29.195	74.265	46.671	1.00	0.00
ATOM	1651	CD	PRO	S	675	30.077	74.724	47.825	1.00	0.00
ATOM	1652	N	SER	S	676	30.004	70.834	47.529	1.00	0.00
ATOM	1653	CA	SER	S	676	30.509	69.453	47.419	1.00	0.00
ATOM	1654	C	SER	S	676	30.790	68.652	48.690	1.00	0.00
ATOM	1655	O	SER	S	676	30.402	67.487	48.845	1.00	0.00
ATOM	1656	CB	SER	S	676	31.755	69.427	46.533	1.00	0.00
ATOM	1657	OG	SER	S	676	31.494	70.139	45.315	1.00	0.00
ATOM	1658	H	SER	S	676	30.177	71.436	46.731	1.00	0.00
ATOM	1659	HG	SER	S	676	32.237	70.723	45.137	1.00	0.00
ATOM	1660	N	ASP	S	677	31.526	69.334	49.579	1.00	0.00
ATOM	1661	CA	ASP	S	677	31.921	68.749	50.858	1.00	0.00
ATOM	1662	C	ASP	S	677	30.840	68.725	51.907	1.00	0.00
ATOM	1663	O	ASP	S	677	30.746	67.852	52.769	1.00	0.00
ATOM	1664	CB	ASP	S	677	33.068	69.544	51.464	1.00	0.00
ATOM	1665	CG	ASP	S	677	34.116	68.643	52.058	1.00	0.00
ATOM	1666	OD1	ASP	S	677	35.212	68.650	51.521	1.00	0.00
ATOM	1667	OD2	ASP	S	677	33.860	67.947	53.041	1.00	0.00
ATOM	1668	H	ASP	S	677	31.752	70.284	49.360	1.00	0.00
ATOM	1669	N	LYS	S	678	30.108	69.838	51.877	1.00	0.00
ATOM	1670	CA	LYS	S	678	29.251	70.124	53.012	1.00	0.00

ATOM	1671 C	LYS	S	678	27.844	70.388	52.543	1.00	0.00
ATOM	1672 O	LYS	S	678	26.934	69.613	52.807	1.00	0.00
ATOM	1673 CB	LYS	S	678	29.809	71.301	53.829	1.00	0.00
ATOM	1674 CG	LYS	S	678	31.244	71.151	54.369	1.00	0.00
ATOM	1675 CD	LYS	S	678	31.418	70.389	55.694	1.00	0.00
ATOM	1676 CE	LYS	S	678	31.087	68.892	55.702	1.00	0.00
ATOM	1677 NZ	LYS	S	678	32.064	68.105	54.943	1.00	0.00
ATOM	1678 H	LYS	S	678	30.115	70.431	51.068	1.00	0.00
ATOM	1679 1HZ	LYS	S	678	32.735	68.640	54.354	1.00	0.00
ATOM	1680 2HZ	LYS	S	678	32.590	67.451	55.552	1.00	0.00
ATOM	1681 3HZ	LYS	S	678	31.522	67.507	54.282	1.00	0.00
ATOM	1682 N	PHE	S	6781	27.701	71.504	51.820	1.00	0.00
ATOM	1683 CA	PHE	S	6781	26.356	71.905	51.411	1.00	0.00
ATOM	1684 C	PHE	S	6781	25.957	71.328	50.062	1.00	0.00
ATOM	1685 O	PHE	S	6781	25.799	72.024	49.069	1.00	0.00
ATOM	1686 CB	PHE	S	6781	26.237	73.436	51.459	1.00	0.00
ATOM	1687 CG	PHE	S	6781	24.792	73.876	51.352	1.00	0.00
ATOM	1688 CD1	PHE	S	6781	23.882	73.553	52.382	1.00	0.00
ATOM	1689 CD2	PHE	S	6781	24.379	74.606	50.216	1.00	0.00
ATOM	1690 CE1	PHE	S	6781	22.537	73.957	52.272	1.00	0.00
ATOM	1691 CE2	PHE	S	6781	23.035	75.011	50.103	1.00	0.00
ATOM	1692 CZ	PHE	S	6781	22.127	74.680	51.131	1.00	0.00
ATOM	1693 H	PHE	S	6781	28.506	71.915	51.392	1.00	0.00
ATOM	1694 N	ILE	S	680	25.857	70.000	50.108	1.00	0.00
ATOM	1695 CA	ILE	S	680	25.302	69.294	48.964	1.00	0.00
ATOM	1696 C	ILE	S	680	24.912	67.930	49.484	1.00	0.00
ATOM	1697 O	ILE	S	680	25.451	67.488	50.508	1.00	0.00
ATOM	1698 CB	ILE	S	680	26.322	69.234	47.803	1.00	0.00
ATOM	1699 CG1	ILE	S	680	25.665	69.211	46.422	1.00	0.00
ATOM	1700 CG2	ILE	S	680	27.318	68.076	47.960	1.00	0.00
ATOM	1701 CD1	ILE	S	680	26.663	69.463	45.290	1.00	0.00
ATOM	1702 H	ILE	S	680	26.025	69.482	50.947	1.00	0.00
ATOM	1703 N	TYR	S	681	23.998	67.308	48.764	1.00	0.00
ATOM	1704 CA	TYR	S	681	23.676	65.918	49.043	1.00	0.00
ATOM	1705 C	TYR	S	681	23.942	65.079	47.798	1.00	0.00
ATOM	1706 O	TYR	S	681	23.306	64.082	47.464	1.00	0.00
ATOM	1707 CB	TYR	S	681	22.233	65.858	49.566	1.00	0.00
ATOM	1708 CG	TYR	S	681	22.150	66.509	50.924	1.00	0.00
ATOM	1709 CD1	TYR	S	681	22.274	65.697	52.068	1.00	0.00
ATOM	1710 CD2	TYR	S	681	21.978	67.907	51.025	1.00	0.00
ATOM	1711 CE1	TYR	S	681	22.287	66.299	53.338	1.00	0.00
ATOM	1712 CE2	TYR	S	681	22.007	68.512	52.293	1.00	0.00
ATOM	1713 CZ	TYR	S	681	22.175	67.700	53.433	1.00	0.00
ATOM	1714 OH	TYR	S	681	22.229	68.292	54.687	1.00	0.00
ATOM	1715 H	TYR	S	681	23.518	67.809	48.046	1.00	0.00
ATOM	1716 H	TYR	S	681	22.766	69.081	54.612	1.00	0.00
ATOM	1717 N	ALA	S	682	24.956	65.574	47.052	1.00	0.00
ATOM	1718 CA	ALA	S	682	25.259	65.127	45.686	1.00	0.00
ATOM	1719 C	ALA	S	682	25.008	63.666	45.384	1.00	0.00
ATOM	1720 O	ALA	S	682	25.581	62.798	46.029	1.00	0.00
ATOM	1721 CB	ALA	S	682	26.715	65.428	45.332	1.00	0.00
ATOM	1722 H	ALA	S	682	25.348	66.407	47.435	1.00	0.00
ATOM	1723 N	THR	S	683	24.133	63.392	44.418	1.00	0.00
ATOM	1724 CA	THR	S	683	23.975	61.977	44.113	1.00	0.00
ATOM	1725 C	THR	S	683	25.121	61.425	43.255	1.00	0.00
ATOM	1726 O	THR	S	683	26.125	62.104	43.032	1.00	0.00
ATOM	1727 CB	THR	S	683	22.531	31.705	43.610	1.00	0.00
ATOM	1728 OG1	THR	S	683	22.178	60.316	43.674	1.00	0.00
ATOM	1729 CG2	THR	S	683	22.203	62.246	42.226	1.00	0.00
ATOM	1730 H	THR	S	683	23.820	64.093	43.771	1.00	0.00
ATOM	1731 HG1	THR	S	683	22.584	59.960	44.466	1.00	0.00
ATOM	1732 N	VAL	S	684	24.944	60.160	42.839	1.00	0.00

ATOM	1733 CA	VAL	S	684	25.659	59.574	41.707	1.00	0.00
ATOM	1734 C	VAL	S	684	24.991	58.294	41.319	1.00	0.00
ATOM	1735 O	VAL	S	684	24.318	57.610	42.087	1.00	0.00
ATOM	1736 CB	VAL	S	684	27.138	59.197	41.882	1.00	0.00
ATOM	1737 CG1	VAL	S	684	28.068	60.270	41.342	1.00	0.00
ATOM	1738 CG2	VAL	S	684	27.468	58.615	43.251	1.00	0.00
ATOM	1739 H	VAL	S	684	24.105	59.684	43.116	1.00	0.00
ATOM	1740 N	LYS	S	685	25.263	57.970	40.057	1.00	0.00
ATOM	1741 CA	LYS	S	685	24.690	56.709	39.623	1.00	0.00
ATOM	1742 C	LYS	S	685	25.620	55.591	40.020	1.00	0.00
ATOM	1743 O	LYS	S	685	26.799	55.815	40.326	1.00	0.00
ATOM	1744 CB	LYS	S	685	24.315	56.761	38.140	1.00	0.00
ATOM	1745 CG	LYS	S	685	23.013	57.545	37.886	1.00	0.00
ATOM	1746 CD	LYS	S	685	23.025	59.010	38.343	1.00	0.00
ATOM	1747 CE	LYS	S	685	21.693	59.734	38.258	1.00	0.00
ATOM	1748 NZ	LYS	S	685	21.385	59.972	36.856	1.00	0.00
ATOM	1749 H	LYS	S	685	25.831	58.580	39.497	1.00	0.00
ATOM	1750 1HZ	LYS	S	685	20.526	59.526	36.500	1.00	0.00
ATOM	1751 2HZ	LYS	S	685	21.353	60.989	36.633	1.00	0.00
ATOM	1752 3HZ	LYS	S	685	22.167	59.645	36.259	1.00	0.00
ATOM	1753 N	GLN	S	686	25.001	54.413	40.089	1.00	0.00
ATOM	1754 CA	GLN	S	686	25.666	53.337	40.793	1.00	0.00
ATOM	1755 C	GLN	S	686	26.936	52.902	40.112	1.00	0.00
ATOM	1756 O	GLN	S	686	27.153	53.060	38.912	1.00	0.00
ATOM	1757 CB	GLN	S	686	24.676	52.198	41.086	1.00	0.00
ATOM	1758 CG	GLN	S	686	24.984	51.268	42.276	1.00	0.00
ATOM	1759 CD	GLN	S	686	25.397	52.052	43.515	1.00	0.00
ATOM	1760 OE1	GLN	S	686	26.512	52.538	43.610	1.00	0.00
ATOM	1761 NE2	GLN	S	686	24.500	52.121	44.499	1.00	0.00
ATOM	1762 H	GLN	S	686	24.089	54.305	39.703	1.00	0.00
ATOM	1763 1HE2	GLN	S	686	24.655	52.726	45.284	1.00	0.00
ATOM	1764 2HE2	GLN	S	686	23.652	51.596	44.462	1.00	0.00
ATOM	1765 N	SER	S	687	27.827	52.411	40.988	1.00	0.00
ATOM	1766 CA	SER	S	687	29.128	51.889	40.576	1.00	0.00
ATOM	1767 C	SER	S	687	29.931	52.713	39.576	1.00	0.00
ATOM	1768 O	SER	S	687	30.706	52.246	38.744	1.00	0.00
ATOM	1769 CB	SER	S	687	28.995	50.423	40.183	1.00	0.00
ATOM	1770 OG	SER	S	687	30.179	49.745	40.615	1.00	0.00
ATOM	1771 H	SER	S	687	27.555	52.341	41.949	1.00	0.00
ATOM	1772 HG	SER	S	687	30.047	48.835	40.360	1.00	0.00
ATOM	1773 N	SER	S	688	29.746	54.017	39.729	1.00	0.00
ATOM	1774 CA	SER	S	688	30.401	54.940	38.834	1.00	0.00
ATOM	1775 C	SER	S	688	31.868	55.132	39.185	1.00	0.00
ATOM	1776 O	SER	S	688	32.298	55.008	40.340	1.00	0.00
ATOM	1777 CB	SER	S	688	29.585	56.240	38.861	1.00	0.00
ATOM	1778 OG	SER	S	688	29.995	57.118	37.806	1.00	0.00
ATOM	1779 H	SER	S	688	29.133	54.349	40.441	1.00	0.00
ATOM	1780 HG	SER	S	688	29.780	56.645	36.995	1.00	0.00
ATOM	1781 N	VAL	S	689	32.597	55.472	38.110	1.00	0.00
ATOM	1782 CA	VAL	S	689	33.337	56.742	38.000	1.00	0.00
ATOM	1783 C	VAL	S	689	33.414	57.580	39.278	1.00	0.00
ATOM	1784 O	VAL	S	689	34.406	57.635	40.005	1.00	0.00
ATOM	1785 CB	VAL	S	689	32.712	57.580	36.853	1.00	0.00
ATOM	1786 CG1	VAL	S	689	33.442	58.887	36.576	1.00	0.00
ATOM	1787 CG2	VAL	S	689	32.445	56.779	35.578	1.00	0.00
ATOM	1788 H	VAL	S	689	32.437	54.935	37.287	1.00	0.00
ATOM	1789 N	ASP	S	690	32.281	58.260	39.539	1.00	0.00
ATOM	1790 CA	ASP	S	690	32.296	59.125	40.718	1.00	0.00
ATOM	1791 C	ASP	S	690	31.748	58.481	41.985	1.00	0.00
ATOM	1792 O	ASP	S	690	31.366	59.107	42.968	1.00	0.00
ATOM	1793 CB	ASP	S	690	31.678	60.500	40.404	1.00	0.00
ATOM	1794 CG	ASP	S	690	31.915	61.497	41.535	1.00	0.00

ATOM	1795 OD1	ASP	S	690	31.116	62.418	41.686	1.00	0.00
ATOM	1796 OD2	ASP	S	690	32.871	61.333	42.294	1.00	0.00
ATOM	1797 H	ASP	S	690	31.500	58.264	38.915	1.00	0.00
ATOM	1798 N	ILE	S	691	31.773	57.154	41.976	1.00	0.00
ATOM	1799 CA	ILE	S	691	32.015	56.569	43.287	1.00	0.00
ATOM	1800 C	ILE	S	691	33.498	56.550	43.569	1.00	0.00
ATOM	1801 O	ILE	S	691	33.942	56.904	44.651	1.00	0.00
ATOM	1802 CB	ILE	S	691	31.407	55.172	43.419	1.00	0.00
ATOM	1803 CG1	ILE	S	691	29.904	55.300	43.197	1.00	0.00
ATOM	1804 CG2	ILE	S	691	31.707	54.579	44.806	1.00	0.00
ATOM	1805 CD1	ILE	S	691	29.181	54.009	43.548	1.00	0.00
ATOM	1806 H	ILE	S	691	31.887	56.675	41.117	1.00	0.00
ATOM	1807 N	TYR	S	692	34.257	56.116	42.540	1.00	0.00
ATOM	1808 CA	TYR	S	692	35.715	56.051	42.692	1.00	0.00
ATOM	1809 C	TYR	S	692	36.354	57.362	43.107	1.00	0.00
ATOM	1810 O	TYR	S	692	36.975	57.463	44.163	1.00	0.00
ATOM	1811 CB	TYR	S	692	36.404	55.537	41.420	1.00	0.00
ATOM	1812 CG	TYR	S	692	36.034	54.104	41.120	1.00	0.00
ATOM	1813 CD1	TYR	S	692	36.525	53.079	41.955	1.00	0.00
ATOM	1814 CD2	TYR	S	692	35.220	53.830	40.003	1.00	0.00
ATOM	1815 CE1	TYR	S	692	36.196	51.746	41.663	1.00	0.00
ATOM	1816 CE2	TYR	S	692	34.889	52.496	39.712	1.00	0.00
ATOM	1817 CZ	TYR	S	692	35.382	51.471	40.547	1.00	0.00
ATOM	1818 OH	TYR	S	692	35.059	50.159	40.273	1.00	0.00
ATOM	1819 H	TYR	S	692	33.836	55.925	41.656	1.00	0.00
ATOM	1820 HH	TYR	S	692	34.392	50.198	39.588	1.00	0.00
ATOM	1821 N	PHE	S	693	36.153	58.380	42.245	1.00	0.00
ATOM	1822 CA	PHE	S	693	36.638	59.734	42.532	1.00	0.00
ATOM	1823 C	PHE	S	693	36.291	60.206	43.935	1.00	0.00
ATOM	1824 O	PHE	S	693	37.138	60.525	44.770	1.00	0.00
ATOM	1825 CB	PHE	S	693	36.084	60.684	41.459	1.00	0.00
ATOM	1826 CG	PHE	S	693	36.698	62.065	41.520	1.00	0.00
ATOM	1827 CD1	PHE	S	693	37.907	62.318	40.835	1.00	0.00
ATOM	1828 CD2	PHE	S	693	36.041	63.086	42.241	1.00	0.00
ATOM	1829 CE1	PHE	S	693	38.458	63.613	40.854	1.00	0.00
ATOM	1830 CE2	PHE	S	693	36.592	64.382	42.262	1.00	0.00
ATOM	1831 CZ	PHE	S	693	37.790	64.624	41.562	1.00	0.00
ATOM	1832 H	PHE	S	693	35.559	58.210	41.458	1.00	0.00
ATOM	1833 N	ARG	S	694	34.962	60.211	44.166	1.00	0.00
ATOM	1834 CA	ARG	S	694	34.403	60.480	45.495	1.00	0.00
ATOM	1835 C	ARG	S	694	34.994	59.664	46.631	1.00	0.00
ATOM	1836 O	ARG	S	694	35.185	60.150	47.736	1.00	0.00
ATOM	1837 CB	ARG	S	694	32.883	60.294	45.503	1.00	0.00
ATOM	1838 CG	ARG	S	694	32.101	61.030	46.602	1.00	0.00
ATOM	1839 CD	ARG	S	694	31.938	62.526	46.315	1.00	0.00
ATOM	1840 NE	ARG	S	694	31.013	63.203	47.228	1.00	0.00
ATOM	1841 CZ	ARG	S	694	30.586	64.452	46.934	1.00	0.00
ATOM	1842 NH1	ARG	S	694	29.613	65.009	47.658	1.00	0.00
ATOM	1843 NH2	ARG	S	694	31.133	65.137	45.937	1.00	0.00
ATOM	1844 H	ARG	S	694	34.357	60.153	43.365	1.00	0.00
ATOM	1845 HE	ARG	S	694	30.724	62.743	48.070	1.00	0.00
ATOM	1846 1HH1	ARG	S	694	29.352	65.965	47.495	1.00	0.00
ATOM	1847 2HH1	ARG	S	694	29.133	64.521	48.390	1.00	0.00
ATOM	1848 1HH2	ARG	S	694	30.768	66.018	45.652	1.00	0.00
ATOM	1849 2HH2	ARG	S	694	31.958	64.797	45.347	1.00	0.00
ATOM	1850 N	ARG	S	695	35.297	58.394	46.332	1.00	0.00
ATOM	1851 CA	ARG	S	695	35.772	57.522	47.394	1.00	0.00
ATOM	1852 C	ARG	S	695	37.022	58.050	48.052	1.00	0.00
ATOM	1853 O	ARG	S	695	37.086	58.112	49.268	1.00	0.00
ATOM	1854 CB	ARG	S	695	35.976	56.088	46.901	1.00	0.00
ATOM	1855 CG	ARG	S	695	36.034	55.074	48.042	1.00	0.00
ATOM	1856 CD	ARG	S	695	34.733	54.303	48.300	1.00	0.00

ATOM	1857 NE	ARG	S	695	33.532	55.124	48.519	1.00	0.00
ATOM	1858 CZ	ARG	S	695	33.248	55.723	49.705	1.00	0.00
ATOM	1859 NH1	ARG	S	695	32.005	56.132	49.932	1.00	0.00
ATOM	1860 NH2	ARG	S	695	34.177	55.903	50.633	1.00	0.00
ATOM	1861 H	ARG	S	695	35.230	58.064	45.392	1.00	0.00
ATOM	1862 HE	ARG	S	695	32.848	55.078	47.787	1.00	0.00
ATOM	1863 1HH1	ARG	S	695	31.716	56.522	50.807	1.00	0.00
ATOM	1864 2HH1	ARG	S	695	31.311	56.061	49.212	1.00	0.00
ATOM	1865 1HH2	ARG	S	695	33.954	56.195	51.561	1.00	0.00
ATOM	1866 2HH2	ARG	S	695	35.143	55.762	50.417	1.00	0.00
ATOM	1867 N	GLN	S	696	37.966	58.474	47.190	1.00	0.00
ATOM	1868 CA	GLN	S	696	39.249	58.940	47.717	1.00	0.00
ATOM	1869 C	GLN	S	696	39.354	60.451	47.704	1.00	0.00
ATOM	1870 O	GLN	S	696	39.429	61.147	48.708	1.00	0.00
ATOM	1871 CB	GLN	S	696	40.405	58.344	46.900	1.00	0.00
ATOM	1872 CG	GLN	S	696	40.179	56.932	46.346	1.00	0.00
ATOM	1873 CD	GLN	S	696	40.076	55.924	47.470	1.00	0.00
ATOM	OE1	GLN	S	696	39.191	55.959	48.314	1.00	0.00
ATOM	1875 NE2	GLN	S	696	41.041	55.007	47.440	1.00	0.00
ATOM	1876 H	GLN	S	696	37.720	58.479	46.219	1.00	0.00
ATOM	1877 1HE2	GLN	S	696	41.068	54.313	48.158	1.00	0.00
ATOM	1878 2HE2	GLN	S	696	41.724	55.036	46.713	1.00	0.00
ATOM	1879 N	VAL	S	697	39.331	60.940	46.459	1.00	0.00
ATOM	1880 CA	VAL	S	697	39.584	62.359	46.212	1.00	0.00
ATOM	1881 C	VAL	S	697	38.477	63.251	46.754	1.00	0.00
ATOM	1882 O	VAL	S	697	38.657	64.411	47.113	1.00	0.00
ATOM	1883 CB	VAL	S	697	39.792	62.597	44.704	1.00	0.00
ATOM	1884 CG1	VAL	S	697	40.276	64.018	44.399	1.00	0.00
ATOM	1885 CG2	VAL	S	697	40.736	61.555	44.096	1.00	0.00
ATOM	1886 H	VAL	S	697	38.966	60.359	45.733	1.00	0.00
ATOM	1887 N	GLU	S	698	37.283	62.962	46.803	1.00	0.00
ATOM	1888 CA	GLU	S	698	36.286	63.423	47.535	1.00	0.00
ATOM	1889 C	GLU	S	698	35.847	62.738	48.813	1.00	0.00
ATOM	1890 O	GLU	S	698	34.708	62.841	49.262	1.00	0.00
ATOM	1891 CB	GLU	S	698	35.110	63.831	46.650	1.00	0.00
ATOM	1892 CG	GLU	S	698	35.363	64.995	45.684	1.00	0.00
ATOM	1893 CD	GLU	S	698	34.051	65.397	45.027	1.00	0.00
ATOM	1894 OE1	GLU	S	698	33.498	64.626	44.257	1.00	0.00
ATOM	1895 OE2	GLU	S	698	33.543	66.483	45.278	1.00	0.00
ATOM	1896 H	GLU	S	698	37.168	61.714	46.500	1.00	0.00
ATOM	1897 N	LEU	S	699	36.832	62.076	49.433	1.00	0.00
ATOM	1898 CA	LEU	S	699	36.621	61.648	50.810	1.00	0.00
ATOM	1899 C	LEU	S	699	37.059	62.712	51.782	1.00	0.00
ATOM	1900 O	LEU	S	699	37.845	62.520	52.700	1.00	0.00
ATOM	1901 CB	LEU	S	699	37.329	60.342	51.149	1.00	0.00
ATOM	1902 CG	LEU	S	699	36.673	59.583	52.308	1.00	0.00
ATOM	1903 CD1	LEU	S	699	35.205	59.256	52.023	1.00	0.00
ATOM	1904 CD2	LEU	S	699	37.473	58.336	52.690	1.00	0.00
ATOM	1905 H	LEU	S	699	37.739	62.018	49.023	1.00	0.00
ATOM	1906 N	SER	S	700	36.487	63.884	51.546	1.00	0.00
ATOM	1907 CA	SER	S	700	36.329	64.638	52.769	1.00	0.00
ATOM	1908 C	SER	S	700	34.941	64.286	53.276	1.00	0.00
ATOM	1909 O	SER	S	700	34.280	63.441	52.673	1.00	0.00
ATOM	1910 CB	SER	S	700	36.583	66.102	52.456	1.00	0.00
ATOM	1911 OG	SER	S	700	37.677	66.218	51.520	1.00	0.00
ATOM	1912 H	SER	S	700	35.848	63.982	50.787	1.00	0.00
ATOM	1913 HG	SER	S	700	38.317	65.572	51.825	1.00	0.00
ATOM	1914 N	THR	S	701	34.527	64.913	54.379	1.00	0.00
ATOM	1915 CA	THR	S	701	33.290	64.467	55.017	1.00	0.00
ATOM	1916 C	THR	S	701	32.005	64.803	54.264	1.00	0.00
ATOM	1917 O	THR	S	701	31.299	65.724	54.658	1.00	0.00
ATOM	1918 CB	THR	S	701	33.296	65.092	56.411	1.00	0.00

ATOM	1919 OG1	THR	S	701	33.757	66.457	56.324	1.00	0.00
ATOM	1920 CG2	THR	S	701	34.196	64.301	57.363	1.00	0.00
ATOM	1921 H	THR	S	701	35.034	65.669	54.794	1.00	0.00
ATOM	1922 HG1	THR	S	701	34.101	66.689	57.189	1.00	0.00
ATOM	1923 N	MET	S	702	31.735	64.073	53.185	1.00	0.00
ATOM	1924 CA	MET	S	702	30.680	64.555	52.304	1.00	0.00
ATOM	1925 C	MET	S	702	29.384	63.784	52.387	1.00	0.00
ATOM	1926 O	MET	S	702	29.349	62.559	52.311	1.00	0.00
ATOM	1927 CB	MET	S	702	31.158	64.565	50.849	1.00	0.00
ATOM	1928 CG	MET	S	702	32.470	65.316	50.629	1.00	0.00
ATOM	1929 SD	MET	S	702	32.899	65.481	48.892	1.00	0.00
ATOM	1930 CE	MET	S	702	34.345	66.530	49.083	1.00	0.00
ATOM	1931 H	MET	S	702	32.316	63.300	52.938	1.00	0.00
ATOM	1932 N	TYR	S	703	28.302	64.571	52.463	1.00	0.00
ATOM	1933 CA	TYR	S	703	27.061	63.922	52.062	1.00	0.00
ATOM	1934 C	TYR	S	703	27.080	63.793	50.554	1.00	0.00
ATOM	1935 O	TYR	S	703	27.656	64.621	49.840	1.00	0.00
ATOM	1936 CB	TYR	S	703	25.821	64.657	52.587	1.00	0.00
ATOM	1937 CG	TYR	S	703	24.861	63.672	53.233	1.00	0.00
ATOM	1938 CD1	TYR	S	703	24.539	63.828	54.597	1.00	0.00
ATOM	1939 CD2	TYR	S	703	24.310	62.624	52.466	1.00	0.00
ATOM	1940 CE1	TYR	S	703	23.660	62.913	55.208	1.00	0.00
ATOM	1941 CE2	TYR	S	703	23.443	61.702	53.076	1.00	0.00
ATOM	1942 CZ	TYR	S	703	23.132	61.851	54.442	1.00	0.00
ATOM	1943 OH	TYR	S	703	22.302	60.916	55.038	1.00	0.00
ATOM	1944 H	TYR	S	703	28.424	65.562	52.430	1.00	0.00
ATOM	1945 HH	TYR	S	703	21.883	61.314	55.797	1.00	0.00
ATOM	1946 N	ARG	S	704	26.545	62.675	50.124	1.00	0.00
ATOM	1947 CA	ARG	S	704	26.666	62.236	48.748	1.00	0.00
ATOM	1948 C	ARG	S	704	25.722	61.084	48.672	1.00	0.00
ATOM	1949 O	ARG	S	704	25.996	59.999	49.171	1.00	0.00
ATOM	1950 CB	ARG	S	704	28.133	61.876	48.432	1.00	0.00
ATOM	1951 CG	ARG	S	704	28.552	60.776	47.440	1.00	0.00
ATOM	1952 CD	ARG	S	704	28.021	60.754	46.000	1.00	0.00
ATOM	1953 NE	ARG	S	704	28.103	62.010	45.247	1.00	0.00
ATOM	1954 CZ	ARG	S	704	28.882	62.131	44.143	1.00	0.00
ATOM	1955 NH1	ARG	S	704	28.670	63.117	43.285	1.00	0.00
ATOM	1956 NH2	ARG	S	704	29.838	61.272	43.877	1.00	0.00
ATOM	1957 H	ARG	S	704	26.124	62.100	50.824	1.00	0.00
ATOM	1958 HE	ARG	S	704	27.353	62.657	45.378	1.00	0.00
ATOM	1959 1HH1	ARG	S	704	29.298	63.219	42.499	1.00	0.00
ATOM	1960 2HH1	ARG	S	704	27.876	63.720	43.366	1.00	0.00
ATOM	1961 1HH2	ARG	S	704	30.435	61.403	43.076	1.00	0.00
ATOM	1962 2HH2	ARG	S	704	29.986	60.474	44.448	1.00	0.00
ATOM	1963 N	HIS	S	705	24.564	61.388	48.076	1.00	0.00
ATOM	1964 CA	HIS	S	705	23.554	60.360	47.845	1.00	0.00
ATOM	1965 C	HIS	S	705	24.052	59.379	46.799	1.00	0.00
ATOM	1966 O	HIS	S	705	23.858	59.498	45.593	1.00	0.00
ATOM	1967 CB	HIS	S	705	22.226	61.012	47.437	1.00	0.00
ATOM	1968 CG	HIS	S	705	21.600	61.818	48.563	1.00	0.00
ATOM	1969 ND1	HIS	S	705	20.457	62.523	48.434	1.00	0.00
ATOM	1970 CD2	HIS	S	705	22.050	61.961	49.880	1.00	0.00
ATOM	1971 CE1	HIS	S	705	20.184	63.091	49.652	1.00	0.00
ATOM	1972 NE2	HIS	S	705	21.173	62.752	50.547	1.00	0.00
ATOM	1973 H	HIS	S	705	24.404	62.322	47.742	1.00	0.00
ATOM	1974 HD1	HIS	S	705	19.939	62.682	47.618	1.00	0.00
ATOM	1975 N	MET	S	706	24.815	58.422	47.321	1.00	0.00
ATOM	1976 CA	MET	S	706	25.538	57.546	46.409	1.00	0.00
ATOM	1977 C	MET	S	706	24.614	56.488	45.862	1.00	0.00
ATOM	1978 O	MET	S	706	24.506	55.392	46.400	1.00	0.00
ATOM	1979 CB	MET	S	706	26.721	56.930	47.150	1.00	0.00
ATOM	1980 CG	MET	S	706	27.276	56.268	46.215	1.00	0.00

ATOM	1981 SD	MET	S	706	29.060	55.467	47.114	1.00	0.00
ATOM	1982 CE	MET	S	706	28.165	53.985	47.619	1.00	0.00
ATOM	1983 H	MET	S	706	24.957	58.417	48.313	1.00	0.00
ATOM	1984 N	GLU	S	707	23.871	56.880	44.836	1.00	0.00
ATOM	1985 CA	GLU	S	707	22.602	56.198	44.745	1.00	0.00
ATOM	1986 C	GLU	S	707	22.613	54.891	44.001	1.00	0.00
ATOM	1987 O	GLU	S	707	23.449	54.631	43.149	1.00	0.00
ATOM	1988 CB	GLU	S	707	21.537	57.197	44.287	1.00	0.00
ATOM	1989 CG	GLU	S	707	20.112	56.889	44.759	1.00	0.00
ATOM	1990 CD	GLU	S	707	20.132	56.469	46.216	1.00	0.00
ATOM	1991 OE1	GLU	S	707	20.644	57.210	47.057	1.00	0.00
ATOM	1992 OE2	GLU	S	707	19.658	55.373	46.493	1.00	0.00
ATOM	1993 H	GLU	S	707	24.044	57.713	44.311	1.00	0.00
ATOM	1994 N	LYS	S	708	21.614	54.087	44.400	1.00	0.00
ATOM	1995 CA	LYS	S	708	21.377	52.758	43.845	1.00	0.00
ATOM	1996 C	LYS	S	708	20.952	52.796	42.387	1.00	0.00
ATOM	1997 O	LYS	S	708	21.744	53.061	41.518	1.00	0.00
ATOM	1998 CB	LYS	S	708	20.423	51.961	44.749	1.00	0.00
ATOM	1999 CG	LYS	S	708	20.680	52.212	46.239	1.00	0.00
ATOM	2000 CD	LYS	S	708	19.653	51.624	47.213	1.00	0.00
ATOM	2001 CE	LYS	S	708	18.169	51.861	46.885	1.00	0.00
ATOM	2002 NZ	LYS	S	708	17.884	53.226	46.423	1.00	0.00
ATOM	2003 H	LYS	S	708	21.011	54.452	45.111	1.00	0.00
ATOM	2004 1HZ	LYS	S	708	18.480	53.967	46.841	1.00	0.00
ATOM	2005 2HZ	LYS	S	708	17.983	53.256	45.389	1.00	0.00
ATOM	2006 3HZ	LYS	S	708	16.873	53.459	46.518	1.00	0.00
ATOM	2007 N	HIS	S	709	19.679	52.534	42.110	1.00	0.00
ATOM	2008 CA	HIS	S	709	19.385	52.517	40.691	1.00	0.00
ATOM	2009 C	HIS	S	709	19.359	53.912	40.092	1.00	0.00
ATOM	2010 O	HIS	S	709	18.790	54.964	40.629	1.00	0.00
ATOM	2011 CB	HIS	S	709	18.105	51.713	40.439	1.00	0.00
ATOM	2012 CG	HIS	S	709	17.851	51.537	38.961	1.00	0.00
ATOM	2013 ND1	HIS	S	709	16.804	52.101	38.342	1.00	0.00
ATOM	2014 CD2	HIS	S	709	18.591	50.808	38.023	1.00	0.00
ATOM	2015 CE1	HIS	S	709	16.865	51.744	37.023	1.00	0.00
ATOM	2016 NE2	HIS	S	709	17.963	50.947	36.827	1.00	0.00
ATOM	2017 H	HIS	S	709	18.960	52.645	42.793	1.00	0.00
ATOM	2018 HD1	HIS	S	709	16.059	52.572	38.767	1.00	0.00
ATOM	2019 N	ASN	S	710	19.990	53.954	38.905	1.00	0.00
ATOM	2020 CA	ASN	S	710	19.992	55.150	38.053	1.00	0.00
ATOM	2021 C	ASN	S	710	18.692	55.937	38.092	1.00	0.00
ATOM	2022 O	ASN	S	710	18.677	57.152	38.327	1.00	0.00
ATOM	2023 CB	ASN	S	710	20.370	54.756	36.610	1.00	0.00
ATOM	2024 CG	ASN	S	710	20.278	55.926	35.633	1.00	0.00
ATOM	2025 OD1	ASN	S	710	20.397	57.103	35.980	1.00	0.00
ATOM	2026 ND2	ASN	S	710	19.987	55.554	34.380	1.00	0.00
ATOM	2027 H	ASN	S	710	20.552	53.167	38.654	1.00	0.00
ATOM	2028 1HD2	ASN	S	710	19.801	56.232	33.667	1.00	0.00
ATOM	2029 2HD2	ASN	S	710	20.005	54.598	34.089	1.00	0.00
ATOM	2030 N	TYR	S	711	17.605	55.171	37.875	1.00	0.00
ATOM	2031 CA	TYR	S	711	16.318	55.849	38.858	1.00	0.00
ATOM	2032 C	TYR	S	711	15.808	56.388	39.173	1.00	0.00
ATOM	2033 O	TYR	S	711	15.246	57.473	39.182	1.00	0.00
ATOM	2034 CB	TYR	S	711	15.245	55.072	37.096	1.00	0.00
ATOM	2035 CG	TYR	S	711	15.018	55.772	35.775	1.00	0.00
ATOM	2036 CD1	TYR	S	711	15.630	55.257	34.614	1.00	0.00
ATOM	2037 CD2	TYR	S	711	14.217	56.933	35.741	1.00	0.00
ATOM	2038 CE1	TYR	S	711	15.456	55.934	33.396	1.00	0.00
ATOM	2039 CE2	TYR	S	711	14.048	57.613	34.523	1.00	0.00
ATOM	2040 CZ	TYR	S	711	14.677	57.110	33.367	1.00	0.00
ATOM	2041 OH	TYR	S	711	14.535	57.787	32.167	1.00	0.00
ATOM	2042 H	TYR	S	711	17.691	54.184	37.751	1.00	0.00

ATOM	2043 HH	TYR	S	711	14.815	57.204	31.457	1.00	0.00
ATOM	2044 N	GLU	S	712	16.071	55.666	40.278	1.00	0.00
ATOM	2045 CA	GLU	S	712	15.760	56.258	41.589	1.00	0.00
ATOM	2046 C	GLU	S	712	16.455	57.591	41.791	1.00	0.00
ATOM	2047 O	GLU	S	712	15.854	58.644	41.961	1.00	0.00
ATOM	2048 CB	GLU	S	712	16.196	55.360	42.734	1.00	0.00
ATOM	2049 CG	GLU	S	712	15.772	53.902	42.650	1.00	0.00
ATOM	2050 CD	GLU	S	712	16.325	53.248	43.889	1.00	0.00
ATOM	2051 OE1	GLU	S	712	17.295	52.505	43.808	1.00	0.00
ATOM	2052 OE2	GLU	S	712	15.805	53.505	44.963	1.00	0.00
ATOM	2053 H	GLU	S	712	16.604	54.826	40.246	1.00	0.00
ATOM	2054 N	SER	S	713	17.794	57.510	41.633	1.00	0.00
ATOM	2055 CA	SER	S	713	18.616	58.731	41.666	1.00	0.00
ATOM	2056 C	SER	S	713	18.030	59.862	40.824	1.00	0.00
ATOM	2057 O	SER	S	713	17.829	60.995	41.252	1.00	0.00
ATOM	2058 CB	SER	S	713	20.045	58.363	41.253	1.00	0.00
ATOM	2059 OG	SER	S	713	20.994	59.406	41.511	1.00	0.00
ATOM	2060 H	SER	S	713	18.179	56.587	41.548	1.00	0.00
ATOM	2061 HG	SER	S	713	20.838	59.728	42.403	1.00	0.00
ATOM	2062 N	ALA	S	714	17.631	59.430	39.619	1.00	0.00
ATOM	2063 CA	ALA	S	714	16.939	60.343	38.725	1.00	0.00
ATOM	2064 C	ALA	S	714	15.644	60.928	39.253	1.00	0.00
ATOM	2065 O	ALA	S	714	15.402	62.121	39.127	1.00	0.00
ATOM	2066 CB	ALA	S	714	16.670	59.679	37.371	1.00	0.00
ATOM	2067 H	ALA	S	714	17.691	58.456	39.419	1.00	0.00
ATOM	2068 N	ALA	S	715	14.826	60.040	39.823	1.00	0.00
ATOM	2069 CA	ALA	S	715	13.465	60.383	40.208	1.00	0.00
ATOM	2070 C	ALA	S	715	13.366	61.174	41.490	1.00	0.00
ATOM	2071 O	ALA	S	715	12.321	61.733	41.809	1.00	0.00
ATOM	2072 CB	ALA	S	715	12.609	59.124	30.343	1.00	0.00
ATOM	2073 H	ALA	S	715	15.206	59.145	40.048	1.00	0.00
ATOM	2074 N	GLU	S	716	14.485	61.230	42.213	1.00	0.00
ATOM	2075 CA	GLU	S	716	14.484	62.263	43.236	1.00	0.00
ATOM	2076 C	GLU	S	716	15.170	63.535	42.802	1.00	0.00
ATOM	2077 O	GLU	S	716	15.009	64.576	43.421	1.00	0.00
ATOM	2078 CB	GLU	S	716	15.097	61.794	44.537	1.00	0.00
ATOM	2079 CG	GLU	S	716	14.230	60.903	45.416	1.00	0.00
ATOM	2080 CD	GLU	S	716	15.075	60.524	46.612	1.00	0.00
ATOM	2081 OE1	GLU	S	716	15.429	61.388	47.409	1.00	0.00
ATOM	2082 OE2	GLU	S	716	15.431	59.362	46.739	1.00	0.00
ATOM	2083 H	GLU	S	716	15.281	60.645	42.043	1.00	0.00
ATOM	2084 N	ALA	S	717	15.927	63.447	41.704	1.00	0.00
ATOM	2085 CA	ALA	S	717	16.518	64.667	41.171	1.00	0.00
ATOM	2086 C	ALA	S	717	15.497	65.553	40.471	1.00	0.00
ATOM	2087 O	ALA	S	717	15.482	66.783	40.544	1.00	0.00
ATOM	2088 CB	ALA	S	717	17.636	64.294	40.209	1.00	0.00
ATOM	2089 H	ALA	S	717	16.044	62.581	41.221	1.00	0.00
ATOM	2090 N	ILE	S	718	14.556	64.864	39.818	1.00	0.00
ATOM	2091 CA	ILE	S	718	13.371	65.602	39.375	1.00	0.00
ATOM	2092 C	ILE	S	718	12.576	66.288	40.504	1.00	0.00
ATOM	2093 O	ILE	S	718	11.748	67.163	40.301	1.00	0.00
ATOM	2094 CB	ILE	S	718	12.514	64.719	38.452	1.00	0.00
ATOM	2095 CG1	ILE	S	718	11.603	65.553	37.546	1.00	0.00
ATOM	2096 CG2	ILE	S	718	11.717	63.682	39.251	1.00	0.00
ATOM	2097 CD1	ILE	S	718	10.894	64.716	36.479	1.00	0.00
ATOM	2098 H	ILE	S	718	14.627	63.870	39.736	1.00	0.00
ATOM	2099 N	GLN	S	719	12.923	65.902	41.746	1.00	0.00
ATOM	2100 CA	GLN	S	719	12.446	66.632	42.929	1.00	0.00
ATOM	2101 C	GLN	S	719	13.503	67.525	43.578	1.00	0.00
ATOM	2102 O	GLN	S	719	13.223	68.406	44.368	1.00	0.00
ATOM	2103 CB	GLN	S	719	11.923	65.654	43.976	1.00	0.00
ATOM	2104 CG	GLN	S	719	10.931	64.652	43.399	1.00	0.00

ATOM	2105 CD	GLN	S	719	10.515	63.690	44.485	1.00	0.00
ATOM	2106 OE1	GLN	S	719	9.831	64.039	45.439	1.00	0.00
ATOM	2107 NE2	GLN	S	719	10.896	62.439	44.260	1.00	0.00
ATOM	2108 H	GLN	S	719	13.601	65.171	41.850	1.00	0.00
ATOM	2109 1HE2	GLN	S	719	10.673	61.761	44.959	1.00	0.00
ATOM	2110 2HE2	GLN	S	719	11.381	62.222	43.416	1.00	0.00
ATOM	2111 N	ALA	S	720	14.762	67.251	43.187	1.00	0.00
ATOM	2112 CA	ALA	S	720	15.967	67.809	43.819	1.00	0.00
ATOM	2113 C	ALA	S	720	16.199	67.335	45.247	1.00	0.00
ATOM	2114 O	ALA	S	720	16.154	68.083	46.217	1.00	0.00
ATOM	2115 CB	ALA	S	720	16.037	69.342	43.732	1.00	0.00
ATOM	2116 H	ALA	S	720	14.909	66.440	42.625	1.00	0.00
ATOM	2117 N	VAL	S	721	16.419	66.014	45.348	1.00	0.00
ATOM	2118 CA	VAL	S	721	16.824	65.438	46.634	1.00	0.00
ATOM	2119 C	VAL	S	721	18.030	64.523	46.466	1.00	0.00
ATOM	2120 O	VAL	S	721	19.051	64.610	47.147	1.00	0.00
ATOM	2121 CB	VAL	S	721	15.680	64.673	47.326	1.00	0.00
ATOM	2122 CG1	VAL	S	721	16.056	64.366	48.780	1.00	0.00
ATOM	2123 CG2	VAL	S	721	14.325	65.382	47.246	1.00	0.00
ATOM	2124 H	VAL	S	721	16.325	65.466	44.521	1.00	0.00
ATOM	2125 N	ARG	S	722	17.886	63.623	45.473	1.00	0.00
ATOM	2126 CA	ARG	S	722	19.134	63.064	44.963	1.00	0.00
ATOM	2127 C	ARG	S	722	19.823	64.129	44.136	1.00	0.00
ATOM	2128 O	ARG	S	722	19.408	64.503	43.040	1.00	0.00
ATOM	2129 CB	ARG	S	722	18.956	61.773	44.159	1.00	0.00
ATOM	2130 CG	ARG	S	722	18.375	60.544	44.872	1.00	0.00
ATOM	2131 CD	ARG	S	722	19.020	60.121	46.193	1.00	0.00
ATOM	2132 NE	ARG	S	722	18.062	60.316	47.276	1.00	0.00
ATOM	2133 CZ	ARG	S	722	17.894	59.523	48.355	1.00	0.00
ATOM	2134 NH1	ARG	S	722	16.909	59.813	49.198	1.00	0.00
ATOM	2135 NH2	ARG	S	722	18.673	58.465	48.557	1.00	0.00
ATOM	2136 H	ARG	S	722	17.037	63.624	44.949	1.00	0.00
ATOM	2137 HE	ARG	S	722	17.341	61.000	47.116	1.00	0.00
ATOM	2138 1HH1	ARG	S	722	16.815	59.374	50.088	1.00	0.00
ATOM	2139 2HH1	ARG	S	722	16.190	60.475	48.935	1.00	0.00
ATOM	2140 1HH2	ARG	S	722	18.567	57.944	49.404	1.00	0.00
ATOM	2141 2HH2	ARG	S	722	19.342	58.125	47.887	1.00	0.00
ATOM	2142 N	ASP	S	723	20.836	64.653	44.826	1.00	0.00
ATOM	2143 CA	ASP	S	723	21.174	66.025	44.529	1.00	0.00
ATOM	2144 C	ASP	S	723	21.957	66.255	43.257	1.00	0.00
ATOM	2145 O	ASP	S	723	21.368	66.398	42.182	1.00	0.00
ATOM	2146 CB	ASP	S	723	21.786	66.617	45.788	1.00	0.00
ATOM	2147 CG	ASP	S	723	21.603	68.105	45.856	1.00	0.00
ATOM	2148 OD1	ASP	S	723	20.668	68.618	45.246	1.00	0.00
ATOM	2149 OD2	ASP	S	723	22.395	68.740	46.538	1.00	0.00
ATOM	2150 H	ASP	S	723	21.125	64.268	45.702	1.00	0.00
ATOM	2151 N	ASN	S	724	23.285	66.304	43.384	1.00	0.00
ATOM	2152 CA	ASN	S	724	23.954	66.403	42.100	1.00	0.00
ATOM	2153 C	ASN	S	724	24.037	65.104	41.344	1.00	0.00
ATOM	2154 O	ASN	S	724	24.516	64.063	41.789	1.00	0.00
ATOM	2155 CB	ASN	S	724	25.285	67.146	42.147	1.00	0.00
ATOM	2156 CG	ASN	S	724	25.626	67.602	40.736	1.00	0.00
ATOM	2157 OD1	ASN	S	724	26.754	67.470	40.276	1.00	0.00
ATOM	2158 ND2	ASN	S	724	24.603	68.097	40.032	1.00	0.00
ATOM	2159 H	ASN	S	724	23.735	66.338	44.264	1.00	0.00
ATOM	2160 1HD2	ASN	S	724	24.676	68.413	39.085	1.00	0.00
ATOM	2161 2HD2	ASN	S	724	23.707	68.287	40.452	1.00	0.00
ATOM	2162 N	LYS	S	725	23.489	65.226	40.148	1.00	0.00
ATOM	2163 CA	LYS	S	725	23.140	64.043	39.392	1.00	0.00
ATOM	2164 C	LYS	S	725	24.240	63.485	38.508	1.00	0.00
ATOM	2165 O	LYS	S	725	24.077	63.405	37.291	1.00	0.00
ATOM	2166 CB	LYS	S	725	21.867	64.407	38.631	1.00	0.00

ATOM	2167 CG	LYS	S	725	21.082	63.256	38.028	1.00	0.00
ATOM	2168 CD	LYS	S	725	19.780	63.741	37.413	1.00	0.00
ATOM	2169 CE	LYS	S	725	18.980	62.591	36.843	1.00	0.00
ATOM	2170 NZ	LYS	S	725	17.555	62.902	36.913	1.00	0.00
ATOM	2171 H	LYS	S	725	23.158	66.115	39.835	1.00	0.00
ATOM	2172 1HZ	LYS	S	725	17.066	62.431	36.129	1.00	0.00
ATOM	2173 2HZ	LYS	S	725	17.095	62.675	37.811	1.00	0.00
ATOM	2174 3HZ	LYS	S	725	17.413	63.901	36.693	1.00	0.00
ATOM	2175 N	LEU	S	726	25.352	63.066	39.126	1.00	0.00
ATOM	2176 CA	LEU	S	726	26.448	62.665	38.234	1.00	0.00
ATOM	2177 C	LEU	S	726	26.383	61.267	37.633	1.00	0.00
ATOM	2178 O	LEU	S	726	26.087	60.251	38.285	1.00	0.00
ATOM	2179 CB	LEU	S	726	27.833	62.909	38.853	1.00	0.00
ATOM	2180 CG	LEU	S	726	28.126	64.347	39.298	1.00	0.00
ATOM	2181 CD1	LEU	S	726	27.684	64.597	40.730	1.00	0.00
ATOM	2182 CD2	LEU	S	726	29.596	64.728	39.148	1.00	0.00
ATOM	2183 H	LEU	S	726	25.506	63.299	40.089	1.00	0.00
ATOM	2184 N	HIS	S	727	26.706	61.245	36.313	1.00	0.00
ATOM	2185 CA	HIS	S	727	26.942	59.974	35.614	1.00	0.00
ATOM	2186 C	HIS	S	727	27.794	60.102	34.345	1.00	0.00
ATOM	2187 O	HIS	S	727	28.917	60.608	34.393	1.00	0.00
ATOM	2188 CB	HIS	S	727	25.618	59.215	35.423	1.00	0.00
ATOM	2189 CG	HIS	S	727	25.770	57.768	34.994	1.00	0.00
ATOM	2190 ND1	HIS	S	727	24.854	57.157	34.226	1.00	0.00
ATOM	2191 CD2	HIS	S	727	26.786	56.850	35.278	1.00	0.00
ATOM	2192 CE1	HIS	S	727	25.257	55.870	34.012	1.00	0.00
ATOM	2193 NE2	HIS	S	727	26.452	55.688	34.658	1.00	0.00
ATOM	2194 H	HIS	S	727	26.685	62.119	35.823	1.00	0.00
ATOM	2195 HD1	HIS	S	727	24.008	57.573	33.939	1.00	0.00
ATOM	2196 N	ALA	S	728	27.310	59.561	33.216	1.00	0.00
ATOM	2197 CA	ALA	S	728	28.296	59.354	32.163	1.00	0.00
ATOM	2198 C	ALA	S	728	27.789	59.711	30.791	1.00	0.00
ATOM	2199 O	ALA	S	728	27.889	58.912	29.856	1.00	0.00
ATOM	2200 CB	ALA	S	728	28.792	57.903	32.166	1.00	0.00
ATOM	2201 H	ALA	S	728	26.335	59.410	33.039	1.00	0.00
ATOM	2202 N	PHE	S	729	27.276	60.956	30.723	1.00	0.00
ATOM	2203 CA	PHE	S	729	26.605	61.427	29.511	1.00	0.00
ATOM	2204 C	PHE	S	729	25.334	60.668	29.141	1.00	0.00
ATOM	2205 O	PHE	S	729	24.937	59.661	29.732	1.00	0.00
ATOM	2206 CB	PHE	S	729	27.572	61.497	28.309	1.00	0.00
ATOM	2207 CG	PHE	S	729	28.286	62.828	28.191	1.00	0.00
ATOM	2208 CD1	PHE	S	729	28.365	63.427	26.915	1.00	0.00
ATOM	2209 CD2	PHE	S	729	28.868	63.449	29.320	1.00	0.00
ATOM	2210 CE1	PHE	S	729	29.035	64.656	26.761	1.00	0.00
ATOM	2211 CE2	PHE	S	729	29.533	64.681	29.167	1.00	0.00
ATOM	2212 CZ	PHE	S	729	29.612	65.272	27.890	1.00	0.00
ATOM	2213 H	PHE	S	729	27.312	61.512	31.555	1.00	0.00
ATOM	2214 N	ILE	S	730	24.714	61.215	28.090	1.00	0.00
ATOM	2215 CA	ILE	S	730	23.459	60.778	27.476	1.00	0.00
ATOM	2216 C	ILE	S	730	22.319	60.313	28.392	1.00	0.00
ATOM	2217 O	ILE	S	730	21.387	61.081	28.633	1.00	0.00
ATOM	2218 CB	ILE	S	730	23.742	59.960	26.195	1.00	0.00
ATOM	2219 CG1	ILE	S	730	22.509	59.797	25.311	1.00	0.00
ATOM	2220 CG2	ILE	S	730	24.440	58.616	26.444	1.00	0.00
ATOM	2221 CD1	ILE	S	730	22.870	59.438	23.867	1.00	0.00
ATOM	2222 H	ILE	S	730	25.109	62.087	27.799	1.00	0.00
ATOM	2223 N	TRP	S	731	22.452	59.093	28.969	1.00	0.00
ATOM	2224 CA	TRP	S	731	21.679	58.715	30.170	1.00	0.00
ATOM	2225 C	TRP	S	731	21.472	59.848	31.167	1.00	0.00
ATOM	2226 O	TRP	S	731	20.436	59.999	31.815	1.00	0.00
ATOM	2227 CB	TRP	S	731	22.392	57.595	30.937	1.00	0.00
ATOM	2228 CG	TRP	S	731	22.257	56.250	30.267	1.00	0.00

ATOM	2229	CD1	TRP	S	731	21.196	55.351	30.436	1.00	0.00
ATOM	2230	CD2	TRP	S	731	23.176	55.589	29.369	1.00	0.00
ATOM	2231	NE1	TRP	S	731	21.394	54.211	29.721	1.00	0.00
ATOM	2232	CE2	TRP	S	731	22.605	54.312	29.045	1.00	0.00
ATOM	2233	CE3	TRP	S	731	24.423	55.962	28.822	1.00	0.00
ATOM	2234	CZ2	TRP	S	731	23.292	53.436	28.178	1.00	0.00
ATOM	2235	CZ3	TRP	S	731	25.100	55.075	27.958	1.00	0.00
ATOM	2236	CH2	TRP	S	731	24.537	53.821	27.639	1.00	0.00
ATOM	2237	H	TRP	S	731	23.222	58.826	28.684	1.00	0.00
ATOM	2238	HE1	TRP	S	731	20.756	53.467	29.682	1.00	0.00
ATOM	2239	N	ASP	S	732	22.539	60.649	31.236	1.00	0.00
ATOM	2240	CA	ASP	S	732	22.588	61.774	32.145	1.00	0.00
ATOM	2241	C	ASP	S	732	22.868	63.135	31.538	1.00	0.00
ATOM	2242	O	ASP	S	732	22.570	64.180	32.121	1.00	0.00
ATOM	2243	CB	ASP	S	732	23.516	61.398	33.283	1.00	0.00
ATOM	2244	CG	ASP	S	732	22.646	60.810	34.365	1.00	0.00
ATOM	2245	OD1	ASP	S	732	22.000	61.572	35.054	1.00	0.00
ATOM	2246	OD2	ASP	S	732	22.574	59.599	34.540	1.00	0.00
ATOM	2247	H	ASP	S	732	23.353	60.362	30.743	1.00	0.00
ATOM	2248	N	SER	S	733	23.377	63.105	30.286	1.00	0.00
ATOM	2249	CA	SER	S	733	23.289	64.350	29.518	1.00	0.00
ATOM	2250	C	SER	S	733	22.223	64.364	28.418	1.00	0.00
ATOM	2251	O	SER	S	733	21.088	64.732	28.688	1.00	0.00
ATOM	2252	CB	SER	S	733	24.665	64.830	29.046	1.00	0.00
ATOM	2253	OG	SER	S	733	25.227	63.934	28.072	1.00	0.00
ATOM	2254	H	SER	S	733	23.647	62.253	29.851	1.00	0.00
ATOM	2255	HG	SER	S	733	25.868	64.482	27.614	1.00	0.00
ATOM	2256	N	ALA	S	734	22.573	63.960	27.180	1.00	0.00
ATOM	2257	CA	ALA	S	734	21.705	64.195	26.015	1.00	0.00
ATOM	2258	C	ALA	S	734	20.192	63.958	26.096	1.00	0.00
ATOM	2259	O	ALA	S	734	19.412	64.716	25.528	1.00	0.00
ATOM	2260	CB	ALA	S	734	22.255	63.479	24.781	1.00	0.00
ATOM	2261	H	ALA	S	734	23.507	63.640	27.020	1.00	0.00
ATOM	2262	N	VAL	S	735	19.774	62.927	26.850	1.00	0.00
ATOM	2263	CA	VAL	S	735	18.323	62.708	26.910	1.00	0.00
ATOM	2264	C	VAL	S	735	17.755	62.999	28.297	1.00	0.00
ATOM	2265	O	VAL	S	735	17.044	62.227	28.932	1.00	0.00
ATOM	2266	CB	VAL	S	735	17.950	61.298	26.409	1.00	0.00
ATOM	2267	CG1	VAL	S	735	16.453	61.184	26.099	1.00	0.00
ATOM	2268	CG2	VAL	S	735	18.764	60.900	25.173	1.00	0.00
ATOM	2269	H	VAL	S	735	20.415	62.332	27.337	1.00	0.00
ATOM	2270	N	LEU	S	736	18.152	64.168	28.806	1.00	0.00
ATOM	2271	CA	LEU	S	736	17.820	64.394	30.211	1.00	0.00
ATOM	2272	C	LEU	S	736	16.861	65.546	30.445	1.00	0.00
ATOM	2273	O	LEU	S	736	16.921	66.565	29.768	1.00	0.00
ATOM	2274	CB	LEU	S	736	19.104	64.543	31.033	1.00	0.00
ATOM	2275	CG	LEU	S	736	18.878	64.625	32.540	1.00	0.00
ATOM	2276	CD1	LEU	S	736	19.642	63.548	33.297	1.00	0.00
ATOM	2277	CD2	LEU	S	736	19.082	66.043	33.075	1.00	0.00
ATOM	2278	H	LEU	S	736	18.653	64.868	28.291	1.00	0.00
ATOM	2279	N	GLU	S	737	15.990	65.285	31.439	1.00	0.00
ATOM	2280	CA	GLU	S	737	15.025	66.217	32.050	1.00	0.00
ATOM	2281	C	GLU	S	737	15.095	67.728	31.746	1.00	0.00
ATOM	2282	O	GLU	S	737	15.436	68.565	32.586	1.00	0.00
ATOM	2283	CB	GLU	S	737	14.978	65.958	33.571	1.00	0.00
ATOM	2284	CG	GLU	S	737	14.798	64.485	34.013	1.00	0.00
ATOM	2285	CD	GLU	S	737	16.092	63.850	34.528	1.00	0.00
ATOM	2286	OE1	GLU	S	737	16.319	62.658	34.351	1.00	0.00
ATOM	2287	OE2	GLU	S	737	16.902	64.522	35.144	1.00	0.00
ATOM	2288	H	GLU	S	737	16.007	64.323	31.713	1.00	0.00
ATOM	2289	N	PHE	S	738	14.685	68.038	30.502	1.00	0.00
ATOM	2290	CA	PHE	S	738	14.931	69.323	29.827	1.00	0.00

ATOM	2291 C	PHE	S	738	14.658	70.671	30.492	1.00	0.00
ATOM	2292 O	PHE	S	738	15.576	71.472	30.642	1.00	0.00
ATOM	2293 CB	PHE	S	738	14.359	69.280	28.404	1.00	0.00
ATOM	2294 CG	PHE	S	738	15.061	68.193	27.616	1.00	0.00
ATOM	2295 CD1	PHE	S	738	16.364	68.426	27.122	1.00	0.00
ATOM	2296 CD2	PHE	S	738	14.412	66.956	27.403	1.00	0.00
ATOM	2297 CE1	PHE	S	738	17.035	67.402	29.425	1.00	0.00
ATOM	2298 CE2	PHE	S	738	15.082	65.931	26.708	1.00	0.00
ATOM	2299 CZ	PHE	S	738	16.391	66.162	26.233	1.00	0.00
ATOM	2300 H	PHE	S	738	14.489	67.237	29.943	1.00	0.00
ATOM	2301 N	GLU	S	739	13.409	70.929	30.919	1.00	0.00
ATOM	2302 CA	GLU	S	739	13.105	72.315	31.315	1.00	0.00
ATOM	2303 C	GLU	S	739	13.507	72.769	32.727	1.00	0.00
ATOM	2304 O	GLU	S	739	12.778	73.447	33.451	1.00	0.00
ATOM	2305 CB	GLU	S	739	11.632	72.615	31.015	1.00	0.00
ATOM	2306 CG	GLU	S	739	11.352	74.077	30.639	1.00	0.00
ATOM	2307 CD	GLU	S	739	12.054	74.443	29.342	1.00	0.00
ATOM	2308 OE1	GLU	S	739	12.862	75.367	29.344	1.00	0.00
ATOM	2309 OE2	GLU	S	739	11.786	73.813	28.324	1.00	0.00
ATOM	2310 H	GLU	S	739	12.742	70.188	30.882	1.00	0.00
ATOM	2311 N	ALA	S	740	14.721	72.335	33.115	1.00	0.00
ATOM	2312 CA	ALA	S	740	15.225	72.574	34.469	1.00	0.00
ATOM	2313 C	ALA	S	740	16.226	73.720	34.567	1.00	0.00
ATOM	2314 O	ALA	S	740	17.359	73.592	35.027	1.00	0.00
ATOM	2315 CB	ALA	S	740	15.848	71.290	35.019	1.00	0.00
ATOM	2316 H	ALA	S	740	15.340	71.898	32.457	1.00	0.00
ATOM	2317 N	SER	S	741	15.701	74.874	34.083	1.00	0.00
ATOM	2318 CA	SER	S	741	16.420	76.150	34.200	1.00	0.00
ATOM	2319 C	SER	S	741	17.805	76.185	33.584	1.00	0.00
ATOM	2320 O	SER	S	741	18.738	76.799	34.090	1.00	0.00
ATOM	2321 CB	SER	S	741	16.434	76.578	35.672	1.00	0.00
ATOM	2322 OG	SER	S	741	15.121	76.306	36.200	1.00	0.00
ATOM	2323 H	SER	S	741	14.755	74.875	33.757	1.00	0.00
ATOM	2324 HG	SER	S	741	15.235	75.944	37.081	1.00	0.00
ATOM	2325 N	GLN	S	742	17.927	75.462	32.466	1.00	0.00
ATOM	2326 CA	GLN	S	742	19.275	75.052	32.100	1.00	0.00
ATOM	2327 C	GLN	S	742	20.252	76.136	31.715	1.00	0.00
ATOM	2328 O	GLN	S	742	19.898	77.163	31.142	1.00	0.00
ATOM	2329 CB	GLN	S	742	19.237	73.929	31.070	1.00	0.00
ATOM	2330 CG	GLN	S	742	18.377	72.812	31.646	1.00	0.00
ATOM	2331 CD	GLN	S	742	18.506	71.542	30.848	1.00	0.00
ATOM	2332 OE1	GLN	S	742	18.661	71.506	29.627	1.00	0.00
ATOM	2333 NE2	GLN	S	742	18.338	70.451	31.590	1.00	0.00
ATOM	2334 H	GLN	S	742	17.121	75.120	31.982	1.00	0.00
ATOM	2335 1HE2	GLN	S	742	18.145	69.540	31.229	1.00	0.00
ATOM	2336 2HE2	GLN	S	742	18.498	70.549	32.852	1.00	0.00
ATOM	2337 N	LYS	S	743	21.485	75.793	32.080	1.00	0.00
ATOM	2338 CA	LYS	S	743	22.757	76.318	31.600	1.00	0.00
ATOM	2339 C	LYS	S	743	23.796	75.561	32.396	1.00	0.00
ATOM	2340 O	LYS	S	743	23.599	75.179	33.548	1.00	0.00
ATOM	2341 CB	LYS	S	743	22.917	77.837	31.749	1.00	0.00
ATOM	2342 CG	LYS	S	743	24.228	78.468	31.236	1.00	0.00
ATOM	2343 CD	LYS	S	743	24.480	78.281	29.735	1.00	0.00
ATOM	2344 CE	LYS	S	743	25.589	79.180	29.166	1.00	0.00
ATOM	2345 NZ	LYS	S	743	26.933	78.806	29.622	1.00	0.00
ATOM	2346 H	LYS	S	743	21.593	74.989	32.671	1.00	0.00
ATOM	2347 1HZ	LYS	S	743	27.950	79.524	29.441	1.00	0.00
ATOM	2348 2HZ	LYS	S	743	27.019	78.620	30.647	1.00	0.00
ATOM	2349 3HZ	LYS	S	743	27.287	77.913	29.209	1.00	0.00
ATOM	2350 N	CYS	S	744	24.893	75.291	31.708	1.00	0.00
ATOM	2351 CA	CYS	S	744	25.741	74.270	32.278	1.00	0.00
ATOM	2352 C	CYS	S	744	27.108	74.347	31.678	1.00	0.00

ATOM	2353 O	CYS	S	744	27.313	73.925	30.543	1.00	0.00
ATOM	2354 CB	CYS	S	744	25.123	72.919	31.958	1.00	0.00
ATOM	2355 SG	CYS	S	744	25.853	71.516	32.822	1.00	0.00
ATOM	2356 H	CYS	S	744	25.044	75.584	30.767	1.00	0.00
ATOM	2357 N	ASP	S	745	28.027	74.846	32.499	1.00	0.00
ATOM	2358 CA	ASP	S	745	29.419	74.922	32.056	1.00	0.00
ATOM	2359 C	ASP	S	745	30.328	74.163	33.004	1.00	0.00
ATOM	2360 O	ASP	S	745	31.554	74.299	33.044	1.00	0.00
ATOM	2361 CB	ASP	S	745	29.832	76.403	31.957	1.00	0.00
ATOM	2362 CG	ASP	S	745	28.733	77.234	31.302	1.00	0.00
ATOM	2363 OD1	ASP	S	745	28.127	76.790	30.340	1.00	0.00
ATOM	2364 OD2	ASP	S	745	28.432	78.330	31.750	1.00	0.00
ATOM	2365 H	ASP	S	745	27.710	75.365	33.291	1.00	0.00
ATOM	2366 N	LEU	S	746	29.613	73.428	33.863	1.00	0.00
ATOM	2367 CA	LEU	S	746	30.253	72.993	35.090	1.00	0.00
ATOM	2368 C	LEU	S	746	30.422	71.502	35.146	1.00	0.00
ATOM	2369 O	LEU	S	746	30.692	70.916	36.193	1.00	0.00
ATOM	2370 CB	LEU	S	746	29.473	73.490	36.307	1.00	0.00
ATOM	2371 CG	LEU	S	746	29.418	75.013	36.441	1.00	0.00
ATOM	2372 CD1	LEU	S	746	28.493	75.435	37.582	1.00	0.00
ATOM	2373 CD2	LEU	S	746	30.811	75.634	36.575	1.00	0.00
ATOM	2374 H	LEU	S	746	28.745	73.068	33.536	1.00	0.00
ATOM	2375 N	VAL	S	747	30.267	70.379	33.978	1.00	0.00
ATOM	2376 CA	VAL	S	747	30.552	69.449	34.002	1.00	0.00
ATOM	2377 C	VAL	S	747	32.045	69.217	34.123	1.00	0.00
ATOM	2378 O	VAL	S	747	32.872	69.979	33.620	1.00	0.00
ATOM	2379 CB	VAL	S	747	29.863	68.834	32.791	1.00	0.00
ATOM	2380 CG1	VAL	S	747	30.264	67.426	32.388	1.00	0.00
ATOM	2381 CG2	VAL	S	747	28.384	68.945	33.102	1.00	0.00
ATOM	2382 H	VAL	S	747	30.008	71.342	33.127	1.00	0.00
ATOM	2383 N	THR	S	748	32.363	68.224	34.950	1.00	0.00
ATOM	2384 CA	THR	S	748	33.537	68.394	35.792	1.00	0.00
ATOM	2385 C	THR	S	748	34.774	67.666	35.345	1.00	0.00
ATOM	2386 O	THR	S	748	34.777	66.441	35.229	1.00	0.00
ATOM	2387 CB	THR	S	748	33.161	68.115	37.262	1.00	0.00
ATOM	2388 OG1	THR	S	748	34.268	68.335	38.148	1.00	0.00
ATOM	2389 CG2	THR	S	748	32.577	66.723	37.499	1.00	0.00
ATOM	2390 H	THR	S	748	31.719	67.470	35.044	1.00	0.00
ATOM	2391 HG1	THR	S	748	34.390	69.284	38.057	1.00	0.00
ATOM	2392 N	THR	S	749	35.818	68.483	35.106	1.00	0.00
ATOM	2393 CA	THR	S	749	37.101	67.954	34.655	1.00	0.00
ATOM	2394 C	THR	S	749	37.918	67.342	35.801	1.00	0.00
ATOM	2395 O	THR	S	749	37.476	67.354	36.957	1.00	0.00
ATOM	2396 CB	THR	S	749	37.854	69.053	33.878	1.00	0.00
ATOM	2397 OG1	THR	S	749	36.980	70.125	33.452	1.00	0.00
ATOM	2398 CG2	THR	S	749	38.570	68.468	32.656	1.00	0.00
ATOM	2399 H	THR	S	749	35.736	69.466	35.286	1.00	0.00
ATOM	2400 HG1	THR	S	749	36.185	69.668	33.179	1.00	0.00
ATOM	2401 N	GLY	S	750	39.092	66.779	35.468	1.00	0.00
ATOM	2402 CA	GLY	S	750	39.764	65.916	36.436	1.00	0.00
ATOM	2403 C	GLY	S	750	39.614	64.450	36.062	1.00	0.00
ATOM	2404 O	GLY	S	750	39.134	63.604	36.821	1.00	0.00
ATOM	2405 H	GLY	S	750	39.434	66.847	34.535	1.00	0.00
ATOM	2406 N	GLU	S	751	40.016	64.189	34.813	1.00	0.00
ATOM	2407 CA	GLU	S	751	39.911	62.844	34.238	1.00	0.00
ATOM	2408 C	GLU	S	751	41.022	61.924	34.708	1.00	0.00
ATOM	2409 O	GLU	S	751	42.167	62.362	34.835	1.00	0.00
ATOM	2410 CB	GLU	S	751	39.398	62.898	32.702	1.00	0.00
ATOM	2411 CG	GLU	S	751	39.032	64.016	32.106	1.00	0.00
ATOM	2412 CD	GLU	S	751	38.039	63.477	31.088	1.00	0.00
ATOM	2413 OE1	GLU	S	751	38.053	63.915	29.942	1.00	0.00
ATOM	2414 OE2	GLU	S	751	37.216	62.640	31.448	1.00	0.00

ATOM	2415 H	GLU	S	751	40.472	64.963	34.383	1.00	0.00
ATOM	2416 N	LEU	S	752	40.595	60.668	34.979	1.00	0.00
ATOM	2417 CA	LEU	S	752	41.362	59.517	35.487	1.00	0.00
ATOM	2418 C	LEU	S	752	40.418	58.601	36.245	1.00	0.00
ATOM	2419 O	LEU	S	752	40.122	57.471	35.856	1.00	0.00
ATOM	2420 CB	LEU	S	752	42.547	59.875	36.402	1.00	0.00
ATOM	2421 CG	LEU	S	752	43.405	58.674	36.819	1.00	0.00
ATOM	2422 CD1	LEU	S	752	44.032	57.962	35.618	1.00	0.00
ATOM	2423 CD2	LEU	S	752	44.447	59.064	37.868	1.00	0.00
ATOM	2424 H	LEU	S	752	39.660	60.533	34.649	1.00	0.00
ATOM	2425 N	PHE	S	753	39.893	59.202	37.325	1.00	0.00
ATOM	2426 CA	PHE	S	753	38.810	58.542	38.040	1.00	0.00
ATOM	2427 C	PHE	S	753	37.536	58.742	37.255	1.00	0.00
ATOM	2428 O	PHE	S	753	36.826	57.797	36.909	1.00	0.00
ATOM	2429 CB	PHE	S	753	38.671	59.086	39.457	1.00	0.00
ATOM	2430 CG	PHE	S	753	39.850	58.694	40.315	1.00	0.00
ATOM	2431 CD1	PHE	S	753	40.953	59.569	40.427	1.00	0.00
ATOM	2432 CD2	PHE	S	753	39.822	57.460	41.001	1.00	0.00
ATOM	2433 CE1	PHE	S	753	42.044	59.205	41.239	1.00	0.00
ATOM	2434 CE2	PHE	S	753	40.912	57.096	41.815	1.00	0.00
ATOM	2435 CZ	PHE	S	753	42.012	57.973	41.926	1.00	0.00
ATOM	2436 H	PHE	S	753	40.125	60.160	37.498	1.00	0.00
ATOM	2437 N	PHE	S	754	37.356	60.016	36.866	1.00	0.00
ATOM	2438 CA	PHE	S	754	36.417	60.329	35.786	1.00	0.00
ATOM	2439 C	PHE	S	754	36.807	59.534	34.565	1.00	0.00
ATOM	2440 O	PHE	S	754	37.926	59.645	34.069	1.00	0.00
ATOM	2441 CB	PHE	S	754	36.349	61.839	35.517	1.00	0.00
ATOM	2442 CG	PHE	S	754	35.823	62.627	36.709	1.00	0.00
ATOM	2443 CD1	PHE	S	754	34.989	62.027	37.684	1.00	0.00
ATOM	2444 CD2	PHE	S	754	36.176	63.990	36.814	1.00	0.00
ATOM	2445 CE1	PHE	S	754	34.511	62.791	38.766	1.00	0.00
ATOM	2446 CE2	PHE	S	754	35.706	64.756	37.897	1.00	0.00
ATOM	2447 CZ	PHE	S	754	34.878	64.148	38.863	1.00	0.00
ATOM	2448 H	PHE	S	754	37.791	60.760	37.374	1.00	0.00
ATOM	2449 N	ARG	S	755	35.904	58.582	34.251	1.00	0.00
ATOM	2450 CA	ARG	S	755	36.334	57.466	33.396	1.00	0.00
ATOM	2451 C	ARG	S	755	36.448	57.983	31.988	1.00	0.00
ATOM	2452 O	ARG	S	755	35.449	58.349	31.378	1.00	0.00
ATOM	2453 CB	ARG	S	755	35.342	56.301	33.442	1.00	0.00
ATOM	2454 CG	ARG	S	755	35.798	55.038	34.181	1.00	0.00
ATOM	2455 CD	ARG	S	755	35.726	55.093	35.705	1.00	0.00
ATOM	2456 NE	ARG	S	755	36.413	53.954	36.312	1.00	0.00
ATOM	2457 CZ	ARG	S	755	37.636	54.133	36.866	1.00	0.00
ATOM	2458 NH1	ARG	S	755	38.320	53.097	37.321	1.00	0.00
ATOM	2459 NH2	ARG	S	755	38.174	55.348	36.931	1.00	0.00
ATOM	2460 H	ARG	S	755	34.954	58.860	34.414	1.00	0.00
ATOM	2461 HE	ARG	S	755	36.081	53.010	36.212	1.00	0.00
ATOM	2462 1HH1	ARG	S	755	39.248	53.208	37.664	1.00	0.00
ATOM	2463 2HH1	ARG	S	755	37.968	52.156	37.330	1.00	0.00
ATOM	2464 1HH2	ARG	S	755	39.105	55.457	37.299	1.00	0.00
ATOM	2465 2HH2	ARG	S	755	37.674	56.159	36.621	1.00	0.00
ATOM	2466 N	SER	S	756	37.700	58.140	31.559	1.00	0.00
ATOM	2467 CA	SER	S	756	37.931	59.358	30.777	1.00	0.00
ATOM	2468 C	SER	S	756	37.310	59.492	29.394	1.00	0.00
ATOM	2469 O	SER	S	756	37.343	58.578	28.572	1.00	0.00
ATOM	2470 CB	SER	S	756	39.434	59.612	30.748	1.00	0.00
ATOM	2471 OG	SER	S	756	39.994	59.112	31.982	1.00	0.00
ATOM	2472 H	SER	S	756	38.409	57.785	32.169	1.00	0.00
ATOM	2473 HG	SER	S	756	39.389	59.351	32.693	1.00	0.00
ATOM	2474 N	GLY	S	757	36.791	60.707	29.134	1.00	0.00
ATOM	2475 CA	GLY	S	757	36.362	61.073	27.778	1.00	0.00
ATOM	2476 C	GLY	S	757	35.402	60.114	27.087	1.00	0.00

ATOM	2477 O	GLY	S	757	34.470	59.570	27.684	1.00	0.00
ATOM	2478 H	GLY	S	757	36.746	61.373	29.885	1.00	0.00
ATOM	2479 N	PHE	S	758	35.699	59.921	25.797	1.00	0.00
ATOM	2480 CA	PHE	S	758	35.162	58.836	24.976	1.00	0.00
ATOM	2481 C	PHE	S	758	36.245	58.413	24.004	1.00	0.00
ATOM	2482 O	PHE	S	758	36.755	59.218	23.222	1.00	0.00
ATOM	2483 CB	PHE	S	758	33.917	59.260	24.184	1.00	0.00
ATOM	2484 CG	PHE	S	758	32.719	59.440	25.088	1.00	0.00
ATOM	2485 CD1	PHE	S	758	32.104	58.305	25.663	1.00	0.00
ATOM	2486 CD2	PHE	S	758	32.233	60.741	25.339	1.00	0.00
ATOM	2487 CE1	PHE	S	758	30.991	58.474	26.507	1.00	0.00
ATOM	2488 CE2	PHE	S	758	31.118	60.912	26.183	1.00	0.00
ATOM	2489 CZ	PHE	S	758	30.511	59.776	26.760	1.00	0.00
ATOM	2490 H	PHE	S	758	36.369	60.512	25.343	1.00	0.00
ATOM	2491 N	GLY	S	759	36.632	57.123	24.086	1.00	0.00
ATOM	2492 CA	GLY	S	759	37.848	56.759	23.344	1.00	0.00
ATOM	2493 C	GLY	S	759	37.819	55.454	22.561	1.00	0.00
ATOM	2494 O	GLY	S	759	37.263	54.455	23.004	1.00	0.00
ATOM	2495 H	GLY	S	759	36.167	56.514	24.727	1.00	0.00
ATOM	2496 N	ILE	S	760	38.454	55.520	21.368	1.00	0.00
ATOM	2497 CA	ILE	S	760	38.690	54.387	20.447	1.00	0.00
ATOM	2498 C	ILE	S	760	39.931	53.621	20.906	1.00	0.00
ATOM	2499 O	ILE	S	760	40.691	54.186	21.678	1.00	0.00
ATOM	2500 CB	ILE	S	760	38.893	54.952	19.016	1.00	0.00
ATOM	2501 CG1	ILE	S	760	39.051	53.901	17.914	1.00	0.00
ATOM	2502 CG2	ILE	S	760	40.101	55.889	18.959	1.00	0.00
ATOM	2503 CD1	ILE	S	760	39.332	54.482	16.527	1.00	0.00
ATOM	2504 H	ILE	S	760	38.926	56.386	21.211	1.00	0.00
ATOM	2505 N	GLY	S	761	40.151	52.381	20.440	1.00	0.00
ATOM	2506 CA	GLY	S	761	41.475	51.816	20.740	1.00	0.00
ATOM	2507 C	GLY	S	761	41.588	50.302	20.671	1.00	0.00
ATOM	2508 O	GLY	S	761	40.758	49.558	21.189	1.00	0.00
ATOM	2509 H	GLY	S	761	39.492	51.886	19.866	1.00	0.00
ATOM	2510 N	MET	S	762	42.647	49.858	19.987	1.00	0.00
ATOM	2511 CA	MET	S	762	42.815	48.433	19.682	1.00	0.00
ATOM	2512 C	MET	S	762	43.591	47.585	20.685	1.00	0.00
ATOM	2513 O	MET	S	762	44.808	47.439	20.601	1.00	0.00
ATOM	2514 CB	MET	S	762	43.424	48.314	18.276	1.00	0.00
ATOM	2515 CG	MET	S	762	43.706	46.897	17.767	1.00	0.00
ATOM	2516 SD	MET	S	762	44.297	46.876	16.072	1.00	0.00
ATOM	2517 CE	MET	S	762	44.615	45.110	15.939	1.00	0.00
ATOM	2518 H	MET	S	762	43.303	50.556	19.701	1.00	0.00
ATOM	2519 N	ARG	S	763	42.836	46.950	21.594	1.00	0.00
ATOM	2520 CA	ARG	S	763	43.374	45.926	22.506	1.00	0.00
ATOM	2521 C	ARG	S	763	44.472	46.443	23.443	1.00	0.00
ATOM	2522 O	ARG	S	763	44.373	47.646	23.672	1.00	0.00
ATOM	2523 CB	ARG	S	763	43.798	44.675	21.709	1.00	0.00
ATOM	2524 CG	ARG	S	763	43.324	43.362	22.330	1.00	0.00
ATOM	2525 CD	ARG	S	763	44.026	42.090	21.812	1.00	0.00
ATOM	2526 NE	ARG	S	763	44.037	41.910	20.353	1.00	0.00
ATOM	2527 CZ	ARG	S	763	42.925	41.707	19.598	1.00	0.00
ATOM	2528 NH1	ARG	S	763	41.708	41.767	20.124	1.00	0.00
ATOM	2529 NH2	ARG	S	763	43.054	41.455	18.301	1.00	0.00
ATOM	2530 H	ARG	S	763	41.855	47.080	21.469	1.00	0.00
ATOM	2531 HE	ARG	S	763	44.972	41.889	19.917	1.00	0.00
ATOM	2532 1HH1	ARG	S	763	40.867	41.715	19.576	1.00	0.00
ATOM	2533 2HH1	ARG	S	763	41.593	41.859	21.116	1.00	0.00
ATOM	2534 1HH2	ARG	S	763	42.263	41.528	17.681	1.00	0.00
ATOM	2535 2HH2	ARG	S	763	43.927	41.204	17.880	1.00	0.00
ATOM	2536 N	LYS	S	764	45.289	45.526	23.983	1.00	0.00
ATOM	2537 CA	LYS	S	764	46.654	45.953	24.286	1.00	0.00
ATOM	2538 C	LYS	S	764	47.540	45.593	23.105	1.00	0.00

ATOM	2539 O	LYS	S	764	48.636	45.048	23.214	1.00	0.00
ATOM	2540 CB	LYS	S	764	47.183	45.292	25.564	1.00	0.00
ATOM	2541 CG	LYS	S	764	48.079	46.194	26.428	1.00	0.00
ATOM	2542 CD	LYS	S	764	47.242	47.252	27.147	1.00	0.00
ATOM	2543 CE	LYS	S	764	47.946	48.166	28.153	1.00	0.00
ATOM	2544 NZ	LYS	S	764	46.892	48.864	28.886	1.00	0.00
ATOM	2545 H	LYS	S	764	45.095	44.549	23.913	1.00	0.00
ATOM	2546 1HZ	LYS	S	764	46.079	49.138	28.306	1.00	0.00
ATOM	2547 2HZ	LYS	S	764	47.204	49.705	29.407	1.00	0.00
ATOM	2548 3HZ	LYS	S	764	46.510	48.238	29.612	1.00	0.00
ATOM	2549 N	ASP	S	765	46.986	45.860	21.907	1.00	0.00
ATOM	2550 CA	ASP	S	765	47.820	45.464	20.780	1.00	0.00
ATOM	2551 C	ASP	S	765	48.819	46.569	20.561	1.00	0.00
ATOM	2552 O	ASP	S	765	48.791	47.602	21.235	1.00	0.00
ATOM	2553 CB	ASP	S	765	47.003	45.101	19.528	1.00	0.00
ATOM	2554 CG	ASP	S	765	47.728	44.023	18.727	1.00	0.00
ATOM	2555 OD1	ASP	S	765	47.448	42.839	18.920	1.00	0.00
ATOM	2556 OD2	ASP	S	765	48.583	44.359	17.909	1.00	0.00
ATOM	2557 H	ASP	S	765	46.272	46.553	21.783	1.00	0.00
ATOM	2558 N	SER	S	766	49.741	46.304	19.661	1.00	0.00
ATOM	2559 CA	SER	S	766	50.706	47.356	19.453	1.00	0.00
ATOM	2560 C	SER	S	766	50.868	47.795	18.012	1.00	0.00
ATOM	2561 O	SER	S	766	50.593	48.956	17.731	1.00	0.00
ATOM	2562 CB	SER	S	766	51.992	47.073	20.238	1.00	0.00
ATOM	2563 OG	SER	S	766	52.307	45.674	20.160	1.00	0.00
ATOM	2564 H	SER	S	766	49.713	45.456	19.134	1.00	0.00
ATOM	2565 HG	SER	S	766	51.756	45.255	20.824	1.00	0.00
ATOM	2566 N	PRO	S	767	51.280	46.898	17.065	1.00	0.00
ATOM	2567 CA	PRO	S	767	51.536	47.418	15.720	1.00	0.00
ATOM	2568 C	PRO	S	767	50.315	47.959	14.987	1.00	0.00
ATOM	2569 O	PRO	S	767	50.463	48.601	13.951	1.00	0.00
ATOM	2570 CB	PRO	S	767	52.197	46.232	15.010	1.00	0.00
ATOM	2571 CG	PRO	S	767	51.622	44.998	15.697	1.00	0.00
ATOM	2572 CD	PRO	S	767	51.527	45.457	17.145	1.00	0.00
ATOM	2573 N	TRP	S	768	49.127	47.687	15.545	1.00	0.00
ATOM	2574 CA	TRP	S	768	48.009	48.426	14.989	1.00	0.00
ATOM	2575 C	TRP	S	768	47.272	49.326	15.957	1.00	0.00
ATOM	2576 O	TRP	S	768	46.673	50.315	15.550	1.00	0.00
ATOM	2577 CB	TRP	S	768	47.075	47.528	14.192	1.00	0.00
ATOM	2578 CG	TRP	S	768	46.448	48.338	13.081	1.00	0.00
ATOM	2579 CD1	TRP	S	768	45.101	48.711	12.974	1.00	0.00
ATOM	2580 CD2	TRP	S	768	47.080	48.853	11.887	1.00	0.00
ATOM	2581 NE1	TRP	S	768	44.871	49.393	11.820	1.00	0.00
ATOM	2582 CE2	TRP	S	768	46.062	49.507	11.116	1.00	0.00
ATOM	2583 CE3	TRP	S	768	48.405	48.805	11.400	1.00	0.00
ATOM	2584 CZ2	TRP	S	768	46.385	50.192	9.873	1.00	0.00
ATOM	2585 CZ3	TRP	S	768	48.716	49.396	10.157	1.00	0.00
ATOM	2586 CH2	TRP	S	768	47.711	50.034	9.397	1.00	0.00
ATOM	2587 H	TRP	S	768	49.000	47.028	16.284	1.00	0.00
ATOM	2588 HE1	TRP	S	768	43.990	49.652	11.466	1.00	0.00
ATOM	2589 N	LYS	S	769	47.392	49.035	17.260	1.00	0.00
ATOM	2590 CA	LYS	S	769	47.031	50.104	18.203	1.00	0.00
ATOM	2591 C	LYS	S	769	47.843	51.385	18.018	1.00	0.00
ATOM	2592 O	LYS	S	769	47.432	52.497	18.338	1.00	0.00
ATOM	2593 CB	LYS	S	769	47.114	49.581	19.637	1.00	0.00
ATOM	2594 CG	LYS	S	769	46.207	50.243	20.683	1.00	0.00
ATOM	2595 CD	LYS	S	769	46.667	51.592	21.223	1.00	0.00
ATOM	2596 CE	LYS	S	769	45.581	52.249	22.068	1.00	0.00
ATOM	2597 NZ	LYS	S	769	46.014	53.591	22.444	1.00	0.00
ATOM	2598 H	LYS	S	769	47.753	48.159	17.577	1.00	0.00
ATOM	2599 1HZ	LYS	S	769	45.134	54.112	22.605	1.00	0.00
ATOM	2600 2HZ	LYS	S	769	46.567	54.025	21.675	1.00	0.00

ATOM	2601	3HZ	LYS	S	769	46.526	53.550	23.349	1.00	0.00
ATOM	2602	N	GLN	S	770	49.034	51.183	17426	1.00	0.00
ATOM	2603	CA	GLN	S	770	49.857	52.269	16.894	1.00	0.00
ATOM	2604	C	GLN	S	770	49.097	53.119	15.896	1.00	0.00
ATOM	2605	O	GLN	S	770	48.855	54.305	16.120	1.00	0.00
ATOM	2606	CB	GLN	S	770	51.142	51.649	16.324	1.00	0.00
ATOM	2607	CG	GLN	S	770	52.089	52.518	15.492	1.00	0.00
ATOM	2608	CD	GLN	S	770	51.843	52.352	13.998	1.00	0.00
ATOM	2609	OE1	GLN	S	770	51.855	53.307	13.230	1.00	0.00
ATOM	2610	NE2	GLN	S	770	51.741	51.095	13.557	1.00	0.00
ATOM	2611	H	GLN	S	770	49.297	50.231	17.295	1.00	0.00
ATOM	2612	1HE2	GLN	S	770	51.962	50.904	12.601	1.00	0.00
ATOM	2613	2HE2	GLN	S	770	51.442	50.347	14.152	1.00	0.00
ATOM	2614	N	ASN	S	771	48.663	52.427	14.819	1.00	0.00
ATOM	2615	CA	ASN	S	771	47.900	53.177	13.820	1.00	0.00
ATOM	2616	C	ASN	S	771	46.658	53.841	14.352	1.00	0.00
ATOM	2617	O	ASN	S	771	46.340	54.964	14.000	1.00	0.00
ATOM	2618	CB	ASN	S	771	47.517	52.369	12.590	1.00	0.00
ATOM	2619	CG	ASN	S	771	47.271	53.337	11.445	1.00	0.00
ATOM	2620	OD1	ASN	S	771	46.168	53.729	11.077	1.00	0.00
ATOM	2621	ND2	ASN	S	771	48.406	53.701	10.843	1.00	0.00
ATOM	2622	H	ASN	S	771	48.910	51.473	14.669	1.00	0.00
ATOM	2623	1HD2	ASN	S	771	48.347	54.228	9.994	1.00	0.00
ATOM	2624	2HD2	ASN	S	771	49.301	53.497	11.237	1.00	0.00
ATOM	2625	N	VAL	S	772	46.001	53.150	15.286	1.00	0.00
ATOM	2626	CA	VAL	S	772	44.888	53.802	15.991	1.00	0.00
ATOM	2627	C	VAL	S	772	45.276	55.056	16.775	1.00	0.00
ATOM	2628	O	VAL	S	772	44.606	56.089	16.806	1.00	0.00
ATOM	2629	CB	VAL	S	772	44.200	52.772	16.890	1.00	0.00
ATOM	2630	CG1	VAL	S	772	42.996	53.345	17.639	1.00	0.00
ATOM	2631	CG2	VAL	S	772	43.823	51.553	16.052	1.00	0.00
ATOM	2632	H	VAL	S	772	46.389	52.258	15.526	1.00	0.00
ATOM	2633	N	SER	S	773	46.443	54.956	17.410	1.00	0.00
ATOM	2634	CA	SER	S	773	46.924	56.157	18.085	1.00	0.00
ATOM	2635	C	SER	S	773	47.550	57.192	17.134	1.00	0.00
ATOM	2636	O	SER	S	773	47.718	58.369	17.430	1.00	0.00
ATOM	2637	CB	SER	S	773	47.783	55.736	19.290	1.00	0.00
ATOM	2638	OG	SER	S	773	47.076	54.744	20.079	1.00	0.00
ATOM	2639	H	SER	S	773	46.987	54.123	17.325	1.00	0.00
ATOM	2640	HG	SER	S	773	46.839	54.078	19.430	1.00	0.00
ATOM	2641	N	LEU	S	774	47.822	56.730	15.902	1.00	0.00
ATOM	2642	CA	LEU	S	774	48.089	57.690	14.831	1.00	0.00
ATOM	2643	C	LEU	S	774	46.803	58.327	14.323	1.00	0.00
ATOM	2644	O	LEU	S	774	46.720	59.513	14.011	1.00	0.00
ATOM	2645	CB	LEU	S	774	48.872	57.005	13.705	1.00	0.00
ATOM	2646	CG	LEU	S	774	49.319	57.929	12.569	1.00	0.00
ATOM	2647	CD1	LEU	S	774	50.255	59.038	13.055	1.00	0.00
ATOM	2648	CD2	LEU	S	774	49.921	57.134	11.410	1.00	0.00
ATOM	2649	H	LEU	S	774	47.656	55.764	15.714	1.00	0.00
ATOM	2650	N	SER	S	775	45.762	57.489	14.303	1.00	0.00
ATOM	2651	CA	SER	S	775	44.429	57.965	13.944	1.00	0.00
ATOM	2652	C	SER	S	775	43.928	59.041	14.892	1.00	0.00
ATOM	2653	O	SER	S	775	43.333	60.048	14.509	1.00	0.00
ATOM	2654	CB	SER	S	775	43.467	56.780	13.801	1.00	0.00
ATOM	2655	OG	SER	S	775	43.971	55.841	12.829	1.00	0.00
ATOM	2656	H	SER	S	775	45.819	56.595	14.737	1.00	0.00
ATOM	2657	HG	SER	S	775	44.802	55.543	13.192	1.00	0.00
ATOM	2658	N	ILE	S	776	44.346	58.887	16.152	1.00	0.00
ATOM	2659	CA	ILE	S	776	44.151	59.964	17.120	1.00	0.00
ATOM	2660	C	ILE	S	776	44.585	61.386	16.743	1.00	0.00
ATOM	2661	O	ILE	S	776	44.103	62.383	17.278	1.00	0.00
ATOM	2662	CB	ILE	S	776	44.623	59.480	18.500	1.00	0.00

ATOM	2663	CG1	ILE	S	776	43.434	59.556	19.446	1.00	0.00
ATOM	2664	CG2	ILE	S	776	45.835	60.234	19.066	1.00	0.00
ATOM	2665	CD1	ILE	S	776	42.199	58.898	18.833	1.00	0.00
ATOM	2666	H	ILE	S	776	44.675	57.982	16.396	1.00	0.00
ATOM	2667	N	LEU	S	777	45.473	61.437	15.737	1.00	0.00
ATOM	2668	CA	LEU	S	777	45.677	62.706	15.030	1.00	0.00
ATOM	2669	C	LEU	S	777	44.951	62.804	13.683	1.00	0.00
ATOM	2670	O	LEU	S	777	44.404	63.832	13.291	1.00	0.00
ATOM	2671	CB	LEU	S	777	47.197	62.958	14.866	1.00	0.00
ATOM	2672	CG	LEU	S	777	47.537	64.361	14.364	1.00	0.00
ATOM	2673	CD1	LEU	S	777	47.069	65.456	15.325	1.00	0.00
ATOM	2674	CD2	LEU	S	777	49.027	64.479	14.043	1.00	0.00
ATOM	2675	H	LEU	S	777	45.867	60.564	15.458	1.00	0.00
ATOM	2676	N	LYS	S	778	44.980	61.665	12.959	1.00	0.00
ATOM	2677	CA	LYS	S	778	44.311	61.538	11.648	1.00	0.00
ATOM	2678	C	LYS	S	778	42.822	61.931	11.599	1.00	0.00
ATOM	2679	O	LYS	S	778	42.207	63.170	10.557	1.00	0.00
ATOM	2680	CB	LYS	S	778	44.582	60.113	11.132	1.00	0.00
ATOM	2681	CG	LYS	S	778	43.952	59.707	9.798	1.00	0.00
ATOM	2682	CD	LYS	S	778	44.444	60.538	8.616	1.00	0.00
ATOM	2683	CE	LYS	S	778	43.404	60.586	7.496	1.00	0.00
ATOM	2684	NZ	LYS	S	778	42.190	61.231	8.018	1.00	0.00
ATOM	2685	H	LYS	S	778	45.416	60.866	13.363	1.00	0.00
ATOM	2686	1HZ	LYS	S	778	41.756	61.885	7.328	1.00	0.00
ATOM	2687	2HZ	LYS	S	778	41.509	60.496	8.287	1.00	0.00
ATOM	2688	3HZ	LYS	S	778	42.423	61.779	8.870	1.00	0.00
ATOM	2689	N	SER	S	779	42.255	62.061	12.805	1.00	0.00
ATOM	2690	CA	SER	S	779	41.015	62.801	12.996	1.00	0.00
ATOM	2691	C	SER	S	779	41.048	64.213	12.406	1.00	0.00
ATOM	2692	O	SER	S	779	40.323	64.499	11.457	1.00	0.00
ATOM	2693	CB	SER	S	779	40.665	62.743	14.489	1.00	0.00
ATOM	2694	OG	SER	S	779	40.696	61.362	14.909	1.00	0.00
ATOM	2695	H	SER	S	779	42.741	61.706	13.601	1.00	0.00
ATOM	2696	HG	SER	S	779	40.118	60.927	14.277	1.00	0.00
ATOM	2697	N	HIS	S	780	41.940	65.059	12.947	1.00	0.00
ATOM	2698	CA	HIS	S	780	42.063	66.406	12.385	1.00	0.00
ATOM	2699	C	HIS	S	780	42.461	66.378	10.917	1.00	0.00
ATOM	2700	O	HIS	S	780	41.742	66.857	10.039	1.00	0.00
ATOM	2701	CB	HIS	S	780	43.066	67.258	13.178	1.00	0.00
ATOM	2702	CG	HIS	S	780	42.711	67.376	14.646	1.00	0.00
ATOM	2703	ND1	HIS	S	780	41.496	67.708	15.116	1.00	0.00
ATOM	2704	CD2	HIS	S	780	43.570	67.199	15.738	1.00	0.00
ATOM	2705	CE1	HIS	S	780	41.578	67.743	16.481	1.00	0.00
ATOM	2706	NE2	HIS	S	780	42.859	67.432	16.871	1.00	0.00
ATOM	2707	H	HIS	S	780	42.514	64.769	13.713	1.00	0.00
ATOM	2708	HD1	HIS	S	780	40.689	67.917	14.596	1.00	0.00
ATOM	2709	N	GLU	S	781	43.645	65.752	10.707	1.00	0.00
ATOM	2710	CA	GLU	S	781	44.211	65.523	9.370	1.00	0.00
ATOM	2711	C	GLU	S	781	44.538	66.778	8.558	1.00	0.00
ATOM	2712	O	GLU	S	781	45.686	67.182	8.393	1.00	0.00
ATOM	2713	CB	GLU	S	781	43.308	64.539	8.617	1.00	0.00
ATOM	2714	CG	GLU	S	781	43.651	64.249	7.158	1.00	0.00
ATOM	2715	CD	GLU	S	781	42.332	64.169	6.422	1.00	0.00
ATOM	2716	OE1	GLU	S	781	41.920	63.079	6.037	1.00	0.00
ATOM	2717	OE2	GLU	S	781	41.703	65.208	6.253	1.00	0.00
ATOM	2718	H	GLU	S	781	44.180	65.466	11.501	1.00	0.00
ATOM	2719	N	ASN	S	782	43.465	67.387	8.033	1.00	0.00
ATOM	2720	CA	ASN	S	782	43.553	68.648	7.298	1.00	0.00
ATOM	2721	C	ASN	S	782	42.766	69.715	8.032	1.00	0.00
ATOM	2722	O	ASN	S	782	42.049	70.537	7.465	1.00	0.00
ATOM	2723	CB	ASN	S	782	43.005	68.481	5.881	1.00	0.00
ATOM	2724	CG	ASN	S	782	44.107	68.041	4.943	1.00	0.00

ATOM	2725 OD1	ASN	S	782	44.940	68.828	4.503	1.00	0.00
ATOM	2726 ND2	ASN	S	782	44.067	66.748	4.604	1.00	0.00
ATOM	2727 H	ASN	S	782	42.565	67.024	8.273	1.00	0.00
ATOM	2728 1HD2	ASN	S	782	44.734	66.400	3.950	1.00	0.00
ATOM	2729 2HD2	ASN	S	782	43.373	66.138	5.002	1.00	0.00
ATOM	2730 N	GLY	S	783	42.899	69.632	9.363	1.00	0.00
ATOM	2731 CA	GLY	S	783	42.081	70.480	10.228	1.00	0.00
ATOM	2732 C	GLY	S	783	40.659	69.971	10.406	1.00	0.00
ATOM	2733 O	GLY	S	783	40.272	69.473	11.464	1.00	0.00
ATOM	2734 H	GLY	S	783	43.432	68.879	9.740	1.00	0.00
ATOM	2735 N	PHE	S	784	39.908	70.145	9.302	1.00	0.00
ATOM	2736 CA	PHE	S	784	38.464	69.933	9.278	1.00	0.00
ATOM	2737 C	PHE	S	784	37.983	68.739	10.075	1.00	0.00
ATOM	2738 O	PHE	S	784	38.308	67.586	9.792	1.00	0.00
ATOM	2739 CB	PHE	S	784	37.977	69.870	7.826	1.00	0.00
ATOM	2740 CG	PHE	S	784	36.477	70.054	7.748	1.00	0.00
ATOM	2741 CD1	PHE	S	784	35.923	71.336	7.956	1.00	0.00
ATOM	2742 CD2	PHE	S	784	35.656	68.941	7.462	1.00	0.00
ATOM	2743 CE1	PHE	S	784	34.527	71.510	7.873	1.00	0.00
ATOM	2744 CE2	PHE	S	784	34.261	69.115	7.378	1.00	0.00
ATOM	2745 CZ	PHE	S	784	33.711	70.396	7.584	1.00	0.00
ATOM	2746 H	PHE	S	784	40.379	70.456	8.481	1.00	0.00
ATOM	2747 N	MET	S	785	37.212	69.105	11.111	1.00	0.00
ATOM	2748 CA	MET	S	785	36.642	68.115	12.026	1.00	0.00
ATOM	2749 C	MET	S	785	35.302	68.609	12.558	1.00	0.00
ATOM	2750 O	MET	S	785	35.103	68.857	13.746	1.00	0.00
ATOM	2751 CB	MET	S	785	37.650	67.834	13.150	1.00	0.00
ATOM	2752 CG	MET	S	785	37.451	66.516	13.903	1.00	0.00
ATOM	2753 SD	MET	S	785	38.604	66.355	15.281	1.00	0.00
ATOM	2754 CE	MET	S	785	37.964	64.827	15.980	1.00	0.00
ATOM	2755 H	MET	S	785	37.090	70.085	11.288	1.00	0.00
ATOM	2756 N	GLU	S	786	34.409	68.834	11.587	1.00	0.00
ATOM	2757 CA	GLU	S	786	33.137	69.433	11.971	1.00	0.00
ATOM	2758 C	GLU	S	786	31.971	68.504	11.725	1.00	0.00
ATOM	2759 O	GLU	S	786	31.189	68.176	12.611	1.00	0.00
ATOM	2760 CB	GLU	S	786	32.958	70.798	11.292	1.00	0.00
ATOM	2761 CG	GLU	S	786	33.873	71.904	11.858	1.00	0.00
ATOM	2762 CD	GLU	S	786	33.522	72.256	13.302	1.00	0.00
ATOM	2763 OE1	GLU	S	786	32.508	71.792	13.810	1.00	0.00
ATOM	2764 OE2	GLU	S	786	34.256	72.999	13.851	1.00	0.00
ATOM	2765 H	GLU	S	786	34.601	68.501	10.661	1.00	0.00
ATOM	2766 N	ASP	S	787	31.923	68.029	10.475	1.00	0.00
ATOM	2767 CA	ASP	S	787	30.963	66.975	10.132	1.00	0.00
ATOM	2768 C	ASP	S	787	30.995	65.791	11.101	1.00	0.00
ATOM	2769 O	ASP	S	787	30.104	65.591	11.920	1.00	0.00
ATOM	2770 CB	ASP	S	787	31.127	66.569	8.647	1.00	0.00
ATOM	2771 CG	ASP	S	787	32.535	66.087	8.290	1.00	0.00
ATOM	2772 OD1	ASP	S	787	33.499	66.487	8.935	1.00	0.00
ATOM	2773 OD2	ASP	S	787	32.678	65.286	7.377	1.00	0.00
ATOM	2774 H	ASP	S	787	32.644	68.267	9.819	1.00	0.00
ATOM	2775 N	LEU	S	788	32.123	65.075	11.051	1.00	0.00
ATOM	2776 CA	LEU	S	788	32.312	63.839	11.809	1.00	0.00
ATOM	2777 C	LEU	S	788	32.431	64.010	13.311	1.00	0.00
ATOM	2778 O	LEU	S	788	32.365	63.058	14.090	1.00	0.00
ATOM	2779 CB	LEU	S	788	33.570	63.123	11.315	1.00	0.00
ATOM	2780 CG	LEU	S	788	33.765	63.083	9.797	1.00	0.00
ATOM	2781 CD1	LEU	S	788	35.108	62.463	9.432	1.00	0.00
ATOM	2782 CD2	LEU	S	788	32.603	62.428	9.052	1.00	0.00
ATOM	2783 H	LEU	S	788	32.779	65.333	10.342	1.00	0.00
ATOM	2784 N	ASP	S	789	32.687	65.268	13.694	1.00	0.00
ATOM	2785 CA	ASP	S	789	32.897	65.416	15.121	1.00	0.00
ATOM	2786 C	ASP	S	789	31.662	65.801	15.903	1.00	0.00

ATOM	2787 O	ASP	S	789	31.021	64.963	16.549	1.00	0.00
ATOM	2788 CB	ASP	S	789	34.100	66.321	15.438	1.00	0.00
ATOM	2789 CG	ASP	S	789	34.738	65.956	16.775	1.00	0.00
ATOM	2790 OD1	ASP	S	789	34.472	64.834	17.294	1.00	0.00
ATOM	2791 OD2	ASP	S	789	35.522	66.726	17.315	1.00	0.00
ATOM	2792 H	ASP	S	789	32.665	66.048	13.071	1.00	0.00
ATOM	2793 N	LYS	S	790	31.392	67.114	15.894	1.00	0.00
ATOM	2794 CA	LYS	S	790	30.651	67.706	17.017	1.00	0.00
ATOM	2795 C	LYS	S	790	29.331	67.053	17.341	1.00	0.00
ATOM	2796 O	LYS	S	790	29.016	66.704	18.482	1.00	0.00
ATOM	2797 CB	LYS	S	790	30.393	69.191	16.800	1.00	0.00
ATOM	2798 CG	LYS	S	790	31.625	69.956	16.346	1.00	0.00
ATOM	2799 CD	LYS	S	790	32.764	70.041	17.363	1.00	0.00
ATOM	2800 CE	LYS	S	790	33.927	70.843	16.777	1.00	0.00
ATOM	2801 NZ	LYS	S	790	33.407	72.128	16.290	1.00	0.00
ATOM	2802 H	LYS	S	790	31.859	67.701	15.232	1.00	0.00
ATOM	2803 1HZ	LYS	S	790	33.058	72.737	17.054	1.00	0.00
ATOM	2804 2HZ	LYS	S	790	32.631	71.963	15.612	1.00	0.00
ATOM	2805 3HZ	LYS	S	790	34.104	72.634	15.713	1.00	0.00
ATOM	2806 N	THR	S	791	28.592	66.873	16.238	1.00	0.00
ATOM	2807 CA	THR	S	791	27.173	66.532	16.242	1.00	0.00
ATOM	2808 C	THR	S	791	26.774	65.165	16.828	1.00	0.00
ATOM	2809 O	THR	S	791	25.611	64.802	17.015	1.00	0.00
ATOM	2810 CB	THR	S	791	26.678	66.834	14.814	1.00	0.00
ATOM	2811 OG1	THR	S	791	25.265	67.032	14.757	1.00	0.00
ATOM	2812 CG2	THR	S	791	27.163	65.832	13.769	1.00	0.00
ATOM	2813 H	THR	S	791	29.033	67.136	15.379	1.00	0.00
ATOM	2814 HG1	THR	S	791	25.052	67.421	13.911	1.00	0.00
ATOM	2815 N	TRP	S	792	27.810	64.408	17.236	1.00	0.00
ATOM	2816 CA	TRP	S	792	27.477	63.320	18.153	1.00	0.00
ATOM	2817 C	TRP	S	792	26.909	63.743	19.509	1.00	0.00
ATOM	2818 O	TRP	S	792	26.105	63.043	20.129	1.00	0.00
ATOM	2819 CB	TRP	S	792	28.642	62.345	18.338	1.00	0.00
ATOM	2820 CG	TRP	S	792	28.101	61.135	19.064	1.00	0.00
ATOM	2821 CD1	TRP	S	792	27.313	60.120	18.506	1.00	0.00
ATOM	2822 CD2	TRP	S	792	28.204	60.816	20.470	1.00	0.00
ATOM	2823 NE1	TRP	S	792	26.928	59.223	19.448	1.00	0.00
ATOM	2824 CE2	TRP	S	792	27.452	59.611	20.681	1.00	0.00
ATOM	2825 CE3	TRP	S	792	28.853	61.446	21.554	1.00	0.00
ATOM	2826 CZ2	TRP	S	792	27.365	59.068	21.980	1.00	0.00
ATOM	2827 CZ3	TRP	S	792	28.757	60.888	22.846	1.00	0.00
ATOM	2828 CH2	TRP	S	792	28.016	59.706	23.059	1.00	0.00
ATOM	2829 H	TRP	S	792	28.735	64.658	16.948	1.00	0.00
ATOM	2830 HE1	TRP	S	792	26.385	58.426	19.209	1.00	0.00
ATOM	2831 N	VAL	S	793	27.346	64.915	19.983	1.00	0.00
ATOM	2832 CA	VAL	S	793	26.567	65.557	21.052	1.00	0.00
ATOM	2833 C	VAL	S	793	25.797	66.710	20.433	1.00	0.00
ATOM	2834 O	VAL	S	793	25.621	66.694	19.218	1.00	0.00
ATOM	2835 CB	VAL	S	793	27.455	65.972	22.235	1.00	0.00
ATOM	2836 CG1	VAL	S	793	27.742	64.762	23.125	1.00	0.00
ATOM	2837 CG2	VAL	S	793	28.744	66.661	21.795	1.00	0.00
ATOM	2838 H	VAL	S	793	28.012	65.435	19.448	1.00	0.00
ATOM	2839 N	ARG	S	794	25.328	67.677	21.235	1.00	0.00
ATOM	2840 CA	ARG	S	794	24.867	68.902	20.584	1.00	0.00
ATOM	2841 C	ARG	S	794	26.064	69.738	20.131	1.00	0.00
ATOM	2842 O	ARG	S	794	26.420	69.733	18.957	1.00	0.00
ATOM	2843 CB	ARG	S	794	23.853	69.647	21.476	1.00	0.00
ATOM	2844 CG	ARG	S	794	22.677	68.755	21.925	1.00	0.00
ATOM	2845 CD	ARG	S	794	21.743	69.405	22.962	1.00	0.00
ATOM	2846 NE	ARG	S	794	20.944	68.410	23.691	1.00	0.00
ATOM	2847 CZ	ARG	S	794	21.075	68.246	25.033	1.00	0.00
ATOM	2848 NH1	ARG	S	794	20.364	67.307	25.642	1.00	0.00

ATOM	2849 NH2	ARG	S	794	21.880	69.022	25.747	1.00	0.00
ATOM	2850 H	ARG	S	794	25.342	67.603	22.232	1.00	0.00
ATOM	2851 HE	ARG	S	794	20.258	67.859	23.222	1.00	0.00
ATOM	2852 1HH1	ARG	S	794	20.534	67.113	26.601	1.00	0.00
ATOM	2853 2HH1	ARG	S	794	19.670	66.758	25.171	1.00	0.00
ATOM	2854 1HH2	ARG	S	794	21.806	69.122	26.737	1.00	0.00
ATOM	2855 2HH2	ARG	S	794	22.618	69.509	25.285	1.00	0.00
ATOM	2856 N	TYR	S	795	26.738	70.371	21.110	1.00	0.00
ATOM	2857 CA	TYR	S	795	28.061	70.869	20.744	1.00	0.00
ATOM	2858 C	TYR	S	795	29.170	70.261	21.587	1.00	0.00
ATOM	2859 O	TYR	S	795	29.980	69.482	21.098	1.00	0.00
ATOM	2860 CB	TYR	S	795	28.109	72.405	20.711	1.00	0.00
ATOM	2861 CG	TYR	S	795	29.405	72.853	20.070	1.00	0.00
ATOM	2862 CD1	TYR	S	795	30.473	73.232	20.907	1.00	0.00
ATOM	2863 CD2	TYR	S	795	29.526	72.856	18.664	1.00	0.00
ATOM	2864 CE1	TYR	S	795	31.708	73.563	20.333	1.00	0.00
ATOM	2865 CE2	TYR	S	795	30.760	73.201	18.087	1.00	0.00
ATOM	2866 CZ	TYR	S	795	31.841	73.530	18.931	1.00	0.00
ATOM	2867 OH	TYR	S	795	33.075	73.831	18.384	1.00	0.00
ATOM	2868 H	TYR	S	795	26.390	70.380	22.044	1.00	0.00
ATOM	2869 HH	TYR	S	795	33.698	73.706	19.100	1.00	0.00
ATOM	2870 N	GLN	S	796	29.160	70.624	22.878	1.00	0.00
ATOM	2871 CA	GLN	S	796	30.089	69.997	23.825	1.00	0.00
ATOM	2872 C	GLN	S	796	29.392	69.725	25.149	1.00	0.00
ATOM	2873 O	GLN	S	796	29.767	70.163	26.238	1.00	0.00
ATOM	2874 CB	GLN	S	796	31.397	70.804	23.938	1.00	0.00
ATOM	2875 CG	GLN	S	796	31.221	72.301	24.201	1.00	0.00
ATOM	2876 CD	GLN	S	796	32.503	73.076	23.922	1.00	0.00
ATOM	2877 OE1	GLN	S	796	33.364	72.711	23.129	1.00	0.00
ATOM	2878 NE2	GLN	S	796	32.548	74.267	24.499	1.00	0.00
ATOM	2879 H	GLN	S	796	28.493	71.289	23.218	1.00	0.00
ATOM	2880 1HE2	GLN	S	796	33.127	75.023	24.202	1.00	0.00
ATOM	2881 2HE2	GLN	S	796	31.952	74.368	25.305	1.00	0.00
ATOM	2882 N	GLU	S	797	28.279	68.987	24.961	1.00	0.00
ATOM	2883 CA	GLU	S	797	27.163	68.939	25.902	1.00	0.00
ATOM	2884 C	GLU	S	797	27.038	69.942	27.033	1.00	0.00
ATOM	2885 O	GLU	S	797	26.907	71.131	26.755	1.00	0.00
ATOM	2886 CB	GLU	S	797	26.752	67.505	26.247	1.00	0.00
ATOM	2887 CG	GLU	S	797	25.220	67.443	26.277	1.00	0.00
ATOM	2888 CD	GLU	S	797	24.699	67.911	24.932	1.00	0.00
ATOM	2889 OE1	GLU	S	797	24.596	67.085	24.041	1.00	0.00
ATOM	2890 OE2	GLU	S	797	24.422	69.099	24.751	1.00	0.00
ATOM	2891 H	GLU	S	797	28.177	68.606	24.043	1.00	0.00
ATOM	2892 N	CYS	S	798	27.060	69.446	28.273	1.00	0.00
ATOM	2893 CA	CYS	S	798	26.843	70.326	29.415	1.00	0.00
ATOM	2894 C	CYS	S	798	28.111	71.069	29.843	1.00	0.00
ATOM	2895 O	CYS	S	798	28.191	71.556	30.966	1.00	0.00
ATOM	2896 CB	CYS	S	798	26.251	69.427	30.510	1.00	0.00
ATOM	2897 SG	CYS	S	798	25.036	69.994	31.753	1.00	0.00
ATOM	2898 H	CYS	S	798	27.164	68.446	28.416	1.00	0.00
ATOM	2899 N	ASP	S	799	29.083	71.105	28.904	1.00	0.00
ATOM	2900 CA	ASP	S	799	30.385	71.757	29.015	1.00	0.00
ATOM	2901 C	ASP	S	799	31.300	71.400	30.152	1.00	0.00
ATOM	2902 O	ASP	S	799	30.907	71.046	31.254	1.00	0.00
ATOM	2903 CB	ASP	S	799	30.331	73.263	28.787	1.00	0.00
ATOM	2904 CG	ASP	S	799	31.123	73.573	27.531	1.00	0.00
ATOM	2905 OD1	ASP	S	799	30.658	74.403	26.753	1.00	0.00
ATOM	2906 OD2	ASP	S	799	32.186	72.978	27.306	1.00	0.00
ATOM	2907 H	ASP	S	799	28.899	70.638	28.050	1.00	0.00
ATOM	2908 N	SER	S	800	32.581	71.425	29.814	1.00	0.00
ATOM	2909 CA	SER	S	800	33.531	70.826	30.736	1.00	0.00
ATOM	2910 C	SER	S	800	34.469	71.819	31.362	1.00	0.00

ATOM	2911 O	SER	S	800	35.683	71.822	31.144	1.00	0.00
ATOM	2912 CB	SER	S	800	34.293	69.706	30.057	1.00	0.00
ATOM	2913 OG	SER	S	800	33.374	68.760	29.495	1.00	0.00
ATOM	2914 H	SER	S	800	32.816	71.967	29.008	1.00	0.00
ATOM	2915 HG	SER	S	800	33.406	68.383	28.546	1.00	0.00
ATOM	2916 N	ARG	S	801	33.858	72.682	32.173	1.00	0.00
ATOM	2917 CA	ARG	S	801	34.693	73.709	32.776	1.00	0.00
ATOM	2918 C	ARG	S	801	34.278	74.080	34.185	1.00	0.00
ATOM	2919 O	ARG	S	801	33.912	75.216	34.491	1.00	0.00
ATOM	2920 CB	ARG	S	801	34.798	74.942	31.862	1.00	0.00
ATOM	2921 CG	ARG	S	801	36.130	75.707	31.952	1.00	0.00
ATOM	2922 CD	ARG	S	801	37.288	75.182	31.075	1.00	0.00
ATOM	2923 NE	ARG	S	801	37.651	73.793	31.363	1.00	0.00
ATOM	2924 CZ	ARG	S	801	38.461	73.469	32.394	1.00	0.00
ATOM	2925 NH1	ARG	S	801	38.546	72.215	32.807	1.00	0.00
ATOM	2926 NH2	ARG	S	801	39.156	74.399	33.026	1.00	0.00
ATOM	2927 H	ARG	S	801	32.858	72.662	32.275	1.00	0.00
ATOM	2928 HE	ARG	S	801	37.190	73.050	30.867	1.00	0.00
ATOM	2929 1HH1	ARG	S	801	39.159	72.001	33.585	1.00	0.00
ATOM	2930 2HH1	ARG	S	801	38.017	71.466	32.402	1.00	0.00
ATOM	2931 1HH2	ARG	S	801	39.638	74.139	33.871	1.00	0.00
ATOM	2932 2HH2	ARG	S	801	39.224	75.336	32.697	1.00	0.00
ATOM	2933 N	SER	S	802	34.427	73.084	35.072	1.00	0.00
ATOM	2934 CA	SER	S	802	34.174	73.382	36.483	1.00	0.00
ATOM	2935 C	SER	S	802	35.119	74.346	37.166	1.00	0.00
ATOM	2936 O	SER	S	802	34.974	74.647	38.347	1.00	0.00
ATOM	2937 CB	SER	S	802	34.094	72.100	37.279	1.00	0.00
ATOM	2938 OG	SER	S	802	33.450	71.146	36.438	1.00	0.00
ATOM	2939 H	SER	S	802	34.664	72.146	34.807	1.00	0.00
ATOM	2940 HG	SER	S	802	32.501	71.240	36.590	1.00	0.00
ATOM	2941 N	ASN	S	803	36.053	74.872	36.354	1.00	0.00
ATOM	2942 CA	ASN	S	803	36.802	76.102	36.625	1.00	0.00
ATOM	2943 C	ASN	S	803	38.031	75.957	37.488	1.00	0.00
ATOM	2944 O	ASN	S	803	39.095	76.508	37.221	1.00	0.00
ATOM	2945 CB	ASN	S	803	35.911	77.251	37.104	1.00	0.00
ATOM	2946 CG	ASN	S	803	36.069	78.395	36.138	1.00	0.00
ATOM	2947 OD1	ASN	S	803	36.832	79.332	36.342	1.00	0.00
ATOM	2948 ND2	ASN	S	803	35.315	78.283	35.038	1.00	0.00
ATOM	2949 H	ASN	S	803	36.303	74.295	35.579	1.00	0.00
ATOM	2950 1HD2	ASN	S	803	34.680	77.519	34.912	1.00	0.00
ATOM	2951 2HD2	ASN	S	803	35.408	78.968	34.320	1.00	0.00
ATOM	2952 N	ALA	S	804	37.877	75.156	38.544	1.00	0.00
ATOM	2953 CA	ALA	S	804	39.112	74.680	39.156	1.00	0.00
ATOM	2954 C	ALA	S	804	39.890	73.646	38.331	1.00	0.00
ATOM	2955 O	ALA	S	804	41.058	73.888	38.052	1.00	0.00
ATOM	2956 CB	ALA	S	804	38.897	74.236	40.613	1.00	0.00
ATOM	2957 H	ALA	S	804	36.982	74.726	38.623	1.00	0.00
ATOM	2958 N	PRO	S	805	39.247	72.508	37.945	1.00	0.00
ATOM	2959 CA	PRO	S	805	40.013	71.526	37.176	1.00	0.00
ATOM	2960 C	PRO	S	805	39.936	71.786	35.669	1.00	0.00
ATOM	2961 O	PRO	S	805	39.664	72.906	35.258	1.00	0.00
ATOM	2962 CB	PRO	S	805	39.317	70.232	37.604	1.00	0.00
ATOM	2963 CG	PRO	S	805	37.838	70.613	37.667	1.00	0.00
ATOM	2964 CD	PRO	S	805	37.881	72.039	38.197	1.00	0.00
ATOM	2965 OXT	PRO	S	805	40.122	70.862	34.884	1.00	0.00
ATOM	2966 C1	GLYC	G	1	29.245	53.000	28.747	1.00	0.00
ATOM	2967 C2	GLYC	G	1	30.276	51.881	28.832	1.00	0.00
ATOM	2968 O1	GLYC	G	1	30.006	50.867	29.448	1.00	0.00
ATOM	2969 O2	GLYC	G	1	31.330	51.994	28.220	1.00	0.00
ATOM	2970 N1	GLYC	G	1	29.000	53.157	27.339	1.00	0.00
ATOM	2971 3H	GLYC	G	1	29.637	53.933	29.148	1.00	0.00
ATOM	2972 4H	GLYC	G	1	28.716	54.113	27.090	1.00	0.00

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ATOM	2973 5H	GLYC	G	1	28.318	52.450	26.998	1.00	0.00
ATOM	2974 1H	GLYC	G	1	29.926	52.936	26.928	1.00	0.00
ATOM	2975 2H	GLYC	G	1	28.317	52.742	29.258	1.00	0.00
END									

Publications cited herein and the material for which they are cited are specifically incorporated by reference.

Those skilled in the art will recognize, or be able to ascertain using no more than routine experimentation, many equivalents to the specific
5 embodiments of the invention described herein. Such equivalents are intended to be encompassed by the following claims.

SEQUENCE LISTING

(1) GENERAL INFORMATION:

- (i) APPLICANT: Bearsden Bio, Inc.
- (ii) TITLE OF INVENTION: METHOD OF DETERMINING PROTEIN-LIGAND INTERACTIONS VIA COMPUTER MODELING

(iii) NUMBER OF SEQUENCES: 25

(iv) CORRESPONDENCE ADDRESS:

- (A) ADDRESSEE: Patrea L. Pabst
- (B) STREET: 2800 One Atlantic Center
1201 West Peachtree Street
- (C) CITY: Atlanta
- (D) STATE: Georgia
- (E) COUNTRY: USA
- (F) ZIP: 30306-3450

(v) COMPUTER READABLE FORM:

- (A) MEDIUM TYPE: Floppy disk
- (B) COMPUTER: IBM PC compatible
- (C) OPERATING SYSTEM: PC-DOS/MS-DOS
- (D) SOFTWARE: PatentIn Release #1.0, Version #1.25

(vi) CURRENT APPLICATION DATA:

- (A) APPLICATION NUMBER: PCT/US98/03951
- (B) FILING DATE: February 27, 1998
- (C) CLASSIFICATION:

(viii) ATTORNEY/AGENT INFORMATION:

- (A) NAME: Pabst, Patrea L.
- (B) REGISTRATION NUMBER: 31,284
- (C) REFERENCE/DOCKET NUMBER: SYM111

(ix) TELECOMMUNICATION INFORMATION:

- (A) TELEPHONE: (404)873-8794
- (B) TELEFAX: (404)873-8795

(2) INFORMATION FOR SEQ ID NO:1:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 238 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(iii) HYPOTHETICAL: NO

(iv) ANTI-SENSE: NO

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

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Ala Leu Pro Asp Thr Val Arg Ile Gly Thr Asp Thr Thr Tyr Ala Pro
1           5           10           15
Phe Ser Ser Lys Asp Ala Lys Gly Glu Phe Ile Gly Phe Asp Ile Asp
20           25           30
Leu Gly Asn Glu Met Cys Lys Arg Met Gln Val Lys Cys Thr Trp Val
35           40           45
Ala Ser Asp Phe Asp Ala Leu Ile Pro Ser Leu Lys Ala Lys Lys Ile
50           55           60
Asp Ala Ile Ile Ser Ser Leu Ser Ile Thr Asp Lys Arg Gln Gln Glu
65           70           75           80
Ile Ala Phe Ser Asp Lys Leu Tyr Ala Ala Asp Ser Arg Leu Ile Ala
85           90           95

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Ala Lys Gly Ser Pro Val Gln Pro Thr Leu Glu Ser Leu Lys Gly Lys
 100 105 110
 His Val Gly Val Leu Gln Gly Ser Thr Gln Glu Ala Tyr Ala Asn Asp
 115 120 125
 Asn Trp Arg Thr Lys Gly Val Asp Val Val Ala Tyr Ala Asn Gln Asp
 130 135 140
 Leu Ile Tyr Ser Asp Leu Thr Ala Gly Arg Leu Asp Ala Ala Leu Gln
 145 150 155 160
 Asp Glu Val Ala Ala Ser Glu Gly Phe Leu Lys Gln Pro Ala Gly Lys
 165 170 175
 Glu Tyr Ala Phe Ala Gly Pro Ser Val Lys Asp Lys Lys Tyr Phe Gly
 180 185 190
 Asp Gly Thr Gly Val Gly Leu Arg Lys Asp Asp Thr Glu Leu Lys Ala
 195 200 205
 Ala Phe Asp Lys Ala Leu Thr Glu Leu Arg Gln Asp Gly Thr Tyr Asp
 210 215 220
 Lys Met Ala Lys Lys Tyr Phe Asp Phe Asn Val Tyr Gly Asp
 225 230 235

- (2) INFORMATION FOR SEQ ID NO:2:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 154 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: protein
 (iii) HYPOTHETICAL: NO
 (iv) ANTI-SENSE: NO
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2

Ser Thr Arg Leu Lys Ile Val Thr Ile His Gln Glu Pro Phe Val Tyr
 1 5 10 15
 Val Lys Pro Thr Leu Ser Asp Gly Thr Cys Lys Glu Glu Phe Thr Val
 20 25 30
 Asn Gly Asp Pro Val Lys Lys Val Ile Cys Thr Gly Pro Asn Asp Thr
 35 40 45
 Ser Pro Gly Ser Pro Arg His Thr Val Pro Gln Cys Cys Tyr Gly Phe
 50 55 60
 Cys Ile Asp Leu Leu Ile Lys Leu Ala Arg Thr Met Asn Phe Thr Tyr
 65 70 75 80
 Glu Val His Leu Val Ala Asp Gly Lys Phe Gly Thr Gln Glu Arg Val
 85 90 95
 Asn Asn Ser Asn Lys Lys Glu Trp Asn Gly Met Met Gly Glu Leu Leu
 100 105 110
 Ser Gly Gln Ala Asp Met Ile Val Ala Pro Leu Thr Ile Asn Asn Glu
 115 120 125
 Arg Ala Gln Tyr Ile Glu Phe Ser Lys Pro Phe Lys Tyr Gln Gly Leu
 130 135 140
 Thr Ile Leu Val Lys Lys Glu Ile Pro Arg
 145 150

- (2) INFORMATION FOR SEQ ID NO:3:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 136 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: protein
 (iii) HYPOTHETICAL: NO
 (iv) ANTI-SENSE: NO
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3

```

Thr Gly Ile Asn Asp Pro Arg Leu Arg Asn Pro Ser Asp Lys Phe Ile
1           5           10           15
Tyr Ala Thr Val Lys Gln Ser Ser Val Asp Ile Tyr Phe Arg Arg Gln
          20           25           30
Val Glu Leu Ser Thr Met Tyr Arg His Met Glu Lys His Asn Tyr Glu
          35           40           45
Ser Ala Ala Glu Ala Ile Gln Ala Val Arg Asp Asn Lys Leu His Ala
          50           55           60
Phe Ile Trp Asp Ser Ala Val Leu Glu Phe Glu Ala Ser Gln Lys Cys
65           70           75           80
Asp Leu Val Thr Thr Gly Glu Leu Phe Phe Arg Ser Gly Phe Gly Ile
          85           90           95
Gly Met Arg Lys Asp Ser Pro Trp Lys Gln Asn Val Ser Leu Ser Ile
          100          105          110
Leu Lys Ser His Glu Asn Gly Phe Met Glu Asp Leu Asp Lys Thr Trp
          115          120          125
Val Arg Tyr Gln Glu Cys Asp Ser
          130          135

```

- (2) INFORMATION FOR SEQ ID NO:4:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 140 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: protein
 (iii) HYPOTHETICAL: NO
 (iv) ANTI-SENSE: NO
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4

```

Ser Arg His Leu Thr Val Ala Thr Leu Glu Glu Arg Pro Phe Val Ile
1           5           10           15
Val Glu Ser Pro Asp Pro Gly Thr Gly Gly Cys Val Pro Asn Thr Val
          20           25           30
Pro Cys Arg Arg Gln Ser Asn His Thr Phe Ser Ser Gly Asp Val Ala
          35           40           45
Pro Tyr Thr Lys Leu Cys Cys Lys Gly Phe Cys Ile Asp Ile Leu Lys
          50           55           60
Lys Leu Ala Arg Val Val Lys Phe Ser Tyr Asp Leu Tyr Leu Val Thr
65           70           75           80
Asn Gly Lys His Gly Lys Arg Val Arg Gly Val Trp Asn Gly Met Ile
          85           90           95

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Gly Glu Val Tyr Tyr Lys Arg Ala Asp Met Ala Ile Gly Ser Leu Thr
 100 105 110
 Ile Asn Glu Glu Arg Ser Glu Ile Val Asp Phe Ser Val Pro Phe Val
 115 120 125
 Glu Thr Gly Ile-Ser Val Met Val Ala Arg Ser Asn
 130 135 140

- (2) INFORMATION FOR SEQ ID NO:5:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 135 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: protein
 (iii) HYPOTHETICAL: NO
 (iv) ANTI-SENSE: NO
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5

Lys Lys Phe Gln Arg Pro Gln Asp Gln Tyr Pro Pro Phe Arg Phe Gly
 1 5 10 15
 Thr Val Pro Asn Gly Ser Thr Glu Arg Asn Ile Arg Ser Asn Tyr Arg
 20 25 30
 Asp Met His Thr His Met Val Lys Phe Asn Gln Arg Ser Val Glu Asp
 35 40 45
 Ala Leu Thr Ser Leu Lys Met Gly Lys Leu Asp Ala Phe Ile Tyr Asp
 50 55 60
 Ala Ala Val Leu Asn Tyr Met Ala Gly Lys Asp Glu Gly Cys Lys Leu
 65 70 75 80
 Val Thr Ile Gly Ser Gly Lys Val Phe Ala Thr Thr Gly Tyr Gly Ile
 85 90 95
 Ala Met Gln Lys Asp Ser His Trp Lys Arg Ala Ile Asp Leu Ala Leu
 100 105 110
 Leu Gln Phe Leu Gly Asp Gly Glu Thr Gln Lys Leu Glu Thr Val Trp
 115 120 125
 Leu Ser Gly Ile Cys Gln Asn
 130 135

- (2) INFORMATION FOR SEQ ID NO:6:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 140 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: protein
 (iii) HYPOTHETICAL: NO
 (iv) ANTI-SENSE: NO
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6

Asp Asp His Leu Ser Ile Val Thr Leu Glu Glu Ala Pro Phe Val Ile
 1 5 10 15
 Val Glu Ser Val Asp Pro Leu Ser Gly Thr Cys Met Arg Asn Thr Val
 20 25 30
 Pro Cys Gln Lys Arg Ile Ile Ser Glu Asn Lys Thr Asp Glu Glu Pro
 35 40 45

Gly Tyr Ile Lys Lys Cys Cys Lys Gly Phe Cys Ile Asp Ile Leu Lys
 50 55 60
 Lys Ile Ser Lys Ser Val Lys Phe Thr Tyr Asp Leu Tyr Leu Val Thr
 65 70 75 80
 Asn Gly Lys His Gly Lys Lys Ile Asn Gly Thr Trp Asn Gly Met Ile
 85 90 95
 Gly Glu Val Val Met Lys Arg Ala Tyr Met Ala Val Gly Ser Leu Thr
 100 105 110
 Ile Asn Glu Glu Arg Ser Glu Val Val Asp Phe Ser Val Pro Phe Ile
 115 120 125
 Glu Thr Gly Ile Ser Val Met Val Ser Arg Ser Asn
 130 135 140

- (2) INFORMATION FOR SEQ ID NO:7:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 133 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: protein
 (iii) HYPOTHETICAL: NO
 (iv) ANTI-SENSE: NO
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7

Lys Lys Phe Gln Arg Pro Asn Asp Phe Ser Pro Pro Phe Arg Phe Gly
 1 5 10 15
 Thr Val Pro Asn Gly Ser Thr Glu Arg Asn Ile Arg Asn Asn Tyr Ala
 20 25 30
 Glu Met His Ala Tyr Met Gly Lys Phe Asn Gln Arg Gly Val Asp Asp
 35 40 45
 Ala Leu Leu Ser Leu Lys Thr Gly Lys Leu Asp Ala Phe Ile Tyr Asp
 50 55 60
 Ala Ala Val Leu Asn Tyr Met Ala Gly Arg Asp Glu Gly Cys Lys Leu
 65 70 75 80
 Val Thr Ser Gly Lys Val Phe Ala Ser Thr Gly Tyr Gly Ile Ala Ile
 85 90 95
 Gln Lys Asp Ser Gly Trp Lys Arg Gln Val Asp Leu Ala Ile Leu Gln
 100 105 110
 Leu Phe Gly Asp Gly Glu Met Glu Glu Leu Glu Ala Leu Trp Leu Thr
 115 120 125
 Gly Ile Cys His Asn
 130

- (2) INFORMATION FOR SEQ ID NO:8:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 142 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: protein
 (iii) HYPOTHETICAL: NO
 (iv) ANTI-SENSE: NO
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8

Asp Asn His Leu Ser Ile Val Thr Leu Glu Glu Ala Pro Phe Val Ile
 1 5 10 15
 Val Glu Asp Ile Asp Pro Leu Thr Glu Thr Cys Val Arg Asn Thr Val
 20 25 30
 Pro Cys Arg Lys Phe Val Lys Ile Asn Asn Ser Thr Asn Glu Gly Met
 35 40 45
 Asn Val Lys Lys Cys Cys Lys Gly Phe Cys Ile Asp Ile Leu Lys Lys
 50 55 60
 Leu Ser Arg Thr Val Lys Phe Thr Tyr Asp Leu Tyr Leu Val Thr Asn
 65 70 75 80
 Gly Lys His Gly Lys Lys Val Asn Asn Val Trp Asn Gly Met Ile Gly
 85 90 95
 Glu Val Val Tyr Gln Arg Ala Val Met Ala Val Gly Ser Leu Thr Ile
 100 105 110
 Asn Glu Glu Arg Ser Glu Val Val Asp Phe Ser Val Pro Phe Val Glu
 115 120 125
 Thr Gly Ile Ser Val Met Val Ser Arg Ser Asn Gly Thr Val
 130 135 140

- (2) INFORMATION FOR SEQ ID NO:9:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 135 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: protein
 - (iii) HYPOTHETICAL: NO
 - (iv) ANTI-SENSE: NO
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9

Lys Lys Phe Gln Arg Pro His Asp Tyr Ser Pro Pro Phe Arg Phe Gly
 1 5 10 15
 Thr Val Pro Asn Gly Ser Thr Glu Arg Asn Ile Arg Asn Asn Tyr Pro
 20 25 30
 Tyr Met His Gln Tyr Met Thr Arg Phe Asn Gln Arg Gly Val Glu Asp
 35 40 45
 Ala Leu Val Ser Leu Lys Thr Gly Lys Leu Asp Ala Phe Ile Tyr Asp
 50 55 60
 Ala Ala Val Leu Asn Tyr Lys Ala Gly Arg Asp Glu Gly Cys Lys Leu
 65 70 75 80
 Val Thr Ile Gly Ser Gly Tyr Ile Phe Ala Ser Thr Gly Tyr Gly Ile
 85 90 95
 Ala Leu Gln Lys Gly Ser Pro Trp Lys Arg Gln Ile Asp Leu Ala Leu
 100 105 110
 Leu Gln Phe Val Gly Asp Gly Glu Met Glu Glu Leu Glu Thr Leu Trp
 115 120 125
 Leu Thr Gly Ile Cys His Asn
 130 135

(2) INFORMATION FOR SEQ ID NO:10:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 123 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE-TYPE: protein

(iii) HYPOTHETICAL: NO

(iv) ANTI-SENSE: NO

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:10

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Ser Ser Glu Asn Arg Thr Ile Val Val Thr Thr Ile Leu Glu Ser Pro
1          5          10          15
Tyr Val Met Tyr Lys Lys Asn His Glu Met Leu Glu Gly Asn Glu Arg
20          25          30
Tyr Glu Gly Tyr Cys Val Asp Leu Ala Tyr Glu Ile Ala Lys His Val
35          40          45
Arg Ile Lys Tyr Lys Leu Ser Ile Val Gly Asp Gly Lys Tyr Gly Ala
50          55          60
Arg Asp Pro Glu Thr Lys Ile Trp Asn Gly Met Val Gly Glu Leu Val
65          70          75          80
Tyr Gly Lys Ala Asp Ile Ala Val Ala Pro Leu Thr Ile Thr Leu Val
85          90          95
Arg Glu Glu Val Ile Asp Phe Ser Lys Pro Phe Met Ser Leu Gly Ile
100         105         110
Ser Ile Met Ile Lys Lys Pro Gln Lys Ser Lys
115         120

```

(2) INFORMATION FOR SEQ ID NO:11:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 150 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(iii) HYPOTHETICAL: NO

(iv) ANTI-SENSE: NO

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:11

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*Val Glu Arg Met Val Ser Pro Ile Glu Ser Ala Glu Asp Leu Ala Lys
1          5          10          15
Gln Glu Thr Ile Ala Tyr Gly Thr Leu Asp Ser Gly Ser Thr Lys Glu
20          25          30
Phe Phe Arg Arg Ser Lys Ile Ala Val Tyr Glu Lys Met Trp Ser Tyr
35          40          45
Met Lys Ser Ala Glu Pro Ser Val Phe Thr Lys Thr Thr Ala Asp Gly
50          55          60
Val Ala Arg Val Arg Lys Ser Lys Gly Lys Phe Ala Phe Leu Leu Glu
65          70          75          80
Ser Thr Met Asn Glu Tyr Ile Glu Gln Arg Lys Pro Cys Asp Thr Met
85          90          95
Lys Val Gly Gly Asn Leu Asp Ser Lys Gly Tyr Gly Val Ala Thr Pro
100         105         110

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Lys Gly Ser Ala Leu Gly Asn Ala Val Asn Leu Ala Val Leu Lys Leu
 115 120 125
 Asn. Glu Gln Gly Leu Leu Asp Lys Leu Lys Asn Lys Trp Trp Tyr Asp
 130 135 140
 Lys Gly Glu Cys Gly Ser
 145 150

- (2) INFORMATION FOR SEQ ID NO:12:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 123 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: protein
 (iii) HYPOTHETICAL: NO
 (iv) ANTI-SENSE: NO
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12

Ser Leu Ser Asn Arg Ser Leu Ile Val Thr Thr Ile Leu Glu Glu Pro
 1 5 10 15
 Tyr Val Leu Phe Lys Lys Ser Asp Lys Pro Leu Tyr Gly Asn Asp Arg
 20 25 30
 Phe Glu Gly Tyr Cys Ile Asp Leu Leu Arg Glu Leu Ser Thr Ile Leu
 35 40 45
 Gly Phe Thr Tyr Glu Ile Arg Leu Val Glu Asp Gly Lys Tyr Gly Ala
 50 55 60
 Gln Asp Asp Val Asn Gly Gln Trp Asn Gly Met Val Arg Glu Leu Ile
 65 70 75 80
 Asp His Lys Ala Asp Leu Ala Val Ala Pro Leu Ala Ile Thr Tyr Val
 85 90 95
 Arg Glu Lys Val Ile Asp Phe Ser Lys Pro Phe Met Thr Leu Gly Ile
 100 105 110
 Ser Ile Leu Tyr Arg Lys Pro Asn Gly Thr Asn
 115 120

- (2) INFORMATION FOR SEQ ID NO:13:
 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 146 amino acids
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
 (ii) MOLECULE TYPE: protein
 (iii) HYPOTHETICAL: NO
 (iv) ANTI-SENSE: NO
 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:13

Val Glu Arg Met Glu Ser Pro Ile Asp Ser Ala Asp Asp Leu Ala Lys
 1 5 10 15
 Gln Thr Lys Ile Glu Tyr Gly Ala Val Glu Asp Gly Ala Thr Met Thr
 20 25 30
 Phe Phe Lys Lys Ser Lys Ile Ser Thr Tyr Asp Lys Met Trp Ala Phe
 35 40 45
 Met Ser Ser Arg Arg Gln Ser Val Leu Val Lys Ser Asn Glu Glu Gly
 50 55 60

Ile Gln Arg Val Leu Thr Ser Asp Tyr Ala Phe Leu Met Glu Ser Thr
 65 70 75 80
 Thr Ile Glu Phe Val Thr Gln Arg Asn Cys Asn Leu Thr Gln Ile Gly
 85 90 95
 Gly Leu Ile Asp Ser Lys Gly Tyr Gly Val Gly Thr Pro Met Gly Ser
 100 105 110
 Pro Tyr Arg Asp Lys Ile Thr Ile Ala Ile Leu Gln Leu Gln Glu Glu
 115 120 125
 Gly Lys Leu His Met Met Lys Glu Lys Trp Trp Arg Gly Asn Gly Cys
 130 135 140
 Pro Glu
 145

- (2) INFORMATION FOR SEQ ID NO:14:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 4 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: protein
 - (iii) HYPOTHETICAL: NO
 - (iv) ANTI-SENSE: NO
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:14

Pro Ala Val Ile
1

- (2) INFORMATION FOR SEQ ID NO:15:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 7 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: protein
 - (iii) HYPOTHETICAL: NO
 - (iv) ANTI-SENSE: NO
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15

Gly Ala Cys Ile Asp Leu Leu
1 5

- (2) INFORMATION FOR SEQ ID NO:16:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 4 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: protein
 - (iii) HYPOTHETICAL: NO
 - (iv) ANTI-SENSE: NO
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:16

Gly Lys Ala Gly
1

- (2) INFORMATION FOR SEQ ID NO:17:
- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 9 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: protein

- (iii) HYPOTHETICAL: NO
- (iv) ANTI-SENSE: NO
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:17

Trp Asn Gly Met Ile Gly Glu Leu Val
1 5

- (2) INFORMATION FOR SEQ ID NO:18:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 10 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: protein
 - (iii) HYPOTHETICAL: NO
 - (iv) ANTI-SENSE: NO
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:18

Ala Asp Met Val Ala Pro Leu Thr Ile Asn
1 5 10

- (2) INFORMATION FOR SEQ ID NO:19:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 6 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: protein
 - (iii) HYPOTHETICAL: NO
 - (iv) ANTI-SENSE: NO
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:19

Glu Val Ile Asp Phe Ser
1 5

- (2) INFORMATION FOR SEQ ID NO:20:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 6 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: protein
 - (iii) HYPOTHETICAL: NO
 - (iv) ANTI-SENSE: NO
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:20

Gly Ile Ser Ile Met Val
1 5

- (2) INFORMATION FOR SEQ ID NO:21:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 4 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: protein
 - (iii) HYPOTHETICAL: NO
 - (iv) ANTI-SENSE: NO
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:21

Met Ala Xaa Met
1

- (2) INFORMATION FOR SEQ ID NO:22:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 4 amino acids
 - (B) TYPE: amino acid

- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: protein
- (iii) HYPOTHETICAL: NO
- (iv) ANTI-SENSE: NO
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO:22

Ala Phe Ile Ala

1

- (2) INFORMATION FOR SEQ ID NO:23:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 6 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: protein
 - (iii) HYPOTHETICAL: NO
 - (iv) ANTI-SENSE: NO
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:23

Ser Ala Val Leu Glu Ala

1

5

- (2) INFORMATION FOR SEQ ID NO:24:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 7 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: protein
 - (iii) HYPOTHETICAL: NO
 - (iv) ANTI-SENSE: NO
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24

Ser Thr Gly Ala Gly Ile Ala

1

5

- (2) INFORMATION FOR SEQ ID NO:25:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 6 amino acids
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
 - (ii) MOLECULE TYPE: protein
 - (iii) HYPOTHETICAL: NO
 - (iv) ANTI-SENSE: NO
 - (xi) SEQUENCE DESCRIPTION: SEQ ID NO:25

Leu Ala Ile Leu Gln Leu

1

5

CLAIMS

I claim:

1. A method for designing a model of a protein-ligand binding pocket of a binding protein comprising

(a) building a model of the protein-ligand binding pocket based upon topographical similarity of the binding pocket to a bacterial periplasmic binding protein,

(b) refining the model of the binding pocket by energy minimization of the binding pocket with a high affinity ligand in the binding pocket,

(c) calculating interaction energies of basis set molecules by calculating the energies of the model of the binding pocket and the basis set molecules individually and the total energies of the individual bound complexes formed from the binding protein and the basis set molecules,

(d) generating a predictive equation by performing regression analysis on the calculated energies and on molecular characteristics of the basis set molecules, and

(e) altering the model of the binding pocket and repeating steps (b), (c), and (d) until either (1) the regression analysis results in a correlation coefficient of at least a predetermined value, or (2) none of the basis set molecules has a predicted $p(IC_{50})$ differing from an experimentally determined $p(IC_{50})$ by more than a predetermined value,

wherein when either (1) the regression analysis results in a correlation coefficient of at least the predetermined value, or (2) none of the basis set molecules has a predicted $p(IC_{50})$ differing from an experimentally determined $p(IC_{50})$ by more than the predetermined value, the predictive equation generated in the last iteration of step (d) is the final predictive equation and the model refined in the last iteration of step (b) is the final model.

2. The method of claim 1 further comprising

(f) calculating the interaction energy for a potential ligand molecule by calculating the energies of the binding pocket and the

potential ligand molecule individually and the energy of the bound complex formed from the binding pocket and the potential ligand molecule, and

(g) calculating the affinity of the potential ligand molecule by applying the interaction energies and molecular characteristics of the potential ligand molecule to the final predictive equation.

3. The method of claim 1 wherein the model of the binding pocket is altered to reduce or eliminate unfavorable contacts between the binding pocket and those basis set molecules having the greatest difference between the experimentally determined $p(IC_{50})$ and the predicted $p(IC_{50})$.

4. The method of claim 1 wherein the model is altered and steps (b), (c), and (d) are repeated until either the regression analysis results in a correlation coefficient of at least 0.8.

5. The method of claim 1 wherein the model is altered and steps (b), (c), and (d) are repeated until none of the basis set molecules has a predicted $p(IC_{50})$ differing from the experimentally determined $p(IC_{50})$ by more than 1.

6. The method of claim 1 wherein the model of the protein-ligand binding pocket is built based upon topographical similarity of the binding pocket to lysine/arginine/ornithine binding protein.

7. The method of claim 1 wherein the binding protein is a ligand gated ion channel protein, and wherein the model of the protein-ligand binding pocket is built based upon topographical similarity of the binding pocket to lysine/arginine/ornithine binding protein.

8. The method of claim 1 wherein the binding protein is a AMPA receptor,

wherein the model of the protein-ligand binding pocket is built based upon topographical similarity of the binding pocket to lysine/arginine/ornithine binding protein, and

wherein the model of the binding pocket is refined by energy minimization of the binding pocket with AMPA in the binding pocket.

9. The method of claim 1 wherein the binding protein is a kainate receptor,

wherein the model of the protein-ligand binding pocket is built based upon topographical similarity of the binding pocket to lysine/arginine/ornithine binding protein, and

wherein the model of the binding pocket is refined by energy minimization of the binding pocket with kainic acid in the binding pocket.

10. The method of claim 1 wherein the binding protein is an NMDA receptor,

wherein the protein-ligand binding pocket is a glutamate site on the NMDA receptor,

wherein the model of the binding pocket is built based upon topographical similarity of the binding pocket to lysine/arginine/ornithine binding protein, and

wherein the model of the binding pocket is refined by energy minimization of the binding pocket with glutamate in the binding pocket.

11. The method of claim 1 wherein the binding protein is an NMDA receptor,

wherein the protein-ligand binding pocket is a glycine site on the NMDA receptor,

wherein the model of the binding pocket is built based upon topographical similarity of the binding pocket to lysine/arginine/ornithine binding protein, and

wherein the model of the binding pocket is refined by energy minimization of the binding pocket with glycine in the binding pocket.

12. A method for predicting the selectivity of a potential ligand molecule for a set of related binding proteins having protein-ligand binding pockets, the method comprising

(a) building a model of each of the protein-ligand binding pockets based upon topographical similarity of the binding pockets to a bacterial periplasmic binding protein,

(b) refining the model of each of the binding pockets by energy minimization of the binding pockets with a high affinity ligand in the binding pockets,

(c) calculating interaction energies of basis set molecules by separately calculating the energies of the model of the binding pocket of each of the binding proteins and the basis set molecules individually and the total energies of the individual bound complexes formed from each of the binding proteins and the basis set molecules,

(d) generating a predictive equation for each of the binding proteins by performing regression analysis on the calculated energies and on molecular characteristics of the basis set molecules,

(e) refining the models of the binding pockets by, separately for each of the binding pockets,

altering the model of the binding pocket and repeating steps (b), (c), and (d) until either (1) the regression analysis results in a correlation coefficient of at least a predetermined value, or (2) none of the basis set molecules has a predicted $p(IC_{50})$ differing from $p(IC_{50})$ by more than a predetermined value,

wherein when either (1) the regression analysis results in a correlation coefficient of at least the predetermined value, or (2) none of the basis set molecules has a predicted $p(IC_{50})$ differing from $p(IC_{50})$ by more than the predetermined value, the predictive equation generated in the last iteration of step (d) is the final predictive equation and the model refined in the last iteration of step (b) is the final model,

(f) calculating the interaction energy for a potential ligand molecule by calculating the energies of each of the binding pockets and the potential ligand molecule individually and the energy of the bound complex formed from each of the binding pockets and the potential ligand molecule, and

(g) calculating the affinity of the potential ligand molecule for each of the binding pockets by applying the interaction energies and molecular

characteristics of the potential ligand molecule to each of the final predictive equations,

wherein a potential ligand molecule is considered selective if the difference between the calculated affinity of the potential ligand molecule for at least one of the binding pockets and the calculated affinity of the potential ligand molecule for at least one of the other binding pockets is greater than a predetermined value.

13. The method of claim 12 wherein each of the models is altered and steps (b), (c), and (d) are repeated until the regression analysis results in a correlation coefficient of at least 0.8.

14. The method of claim 12 wherein each of the models is altered and steps (b), (c), and (d) are repeated until none of the basis set molecules has a predicted $p(IC_{50})$ differing from $p(IC_{50})$ by more than 1.

15. A method for predicting the affinity of a potential ligand molecule binding to a binding protein having a protein-ligand binding pocket, the method comprising

(a) calculating the interaction energy for a potential ligand molecule by calculating the energies of a model of the protein-ligand binding pocket and the potential ligand molecule individually and the energy of the bound complex formed from the binding pocket and the potential ligand molecule, and

(b) calculating the affinity of the potential ligand molecule by applying the interaction energies and molecular characteristics of the potential ligand molecule to a predictive equation for ligand binding to the binding protein,

wherein (1) the binding protein is AMPA receptor GluR3 and the model of the binding protein is the model of Table 3, (2) the binding protein is NMDA receptor NR2-B and the model of the binding protein is the model of Table 4, (3) the binding protein is kainate receptor GluR6 and the model of the binding protein is the model of Table 5, or (4) the binding protein is NMDA receptor NR1 and the model of the binding protein is the model of Table 6.

16. The method of claim 15 wherein the the binding protein is AMPA receptor GluR3 and the model of the binding protein is the model of Table 3.

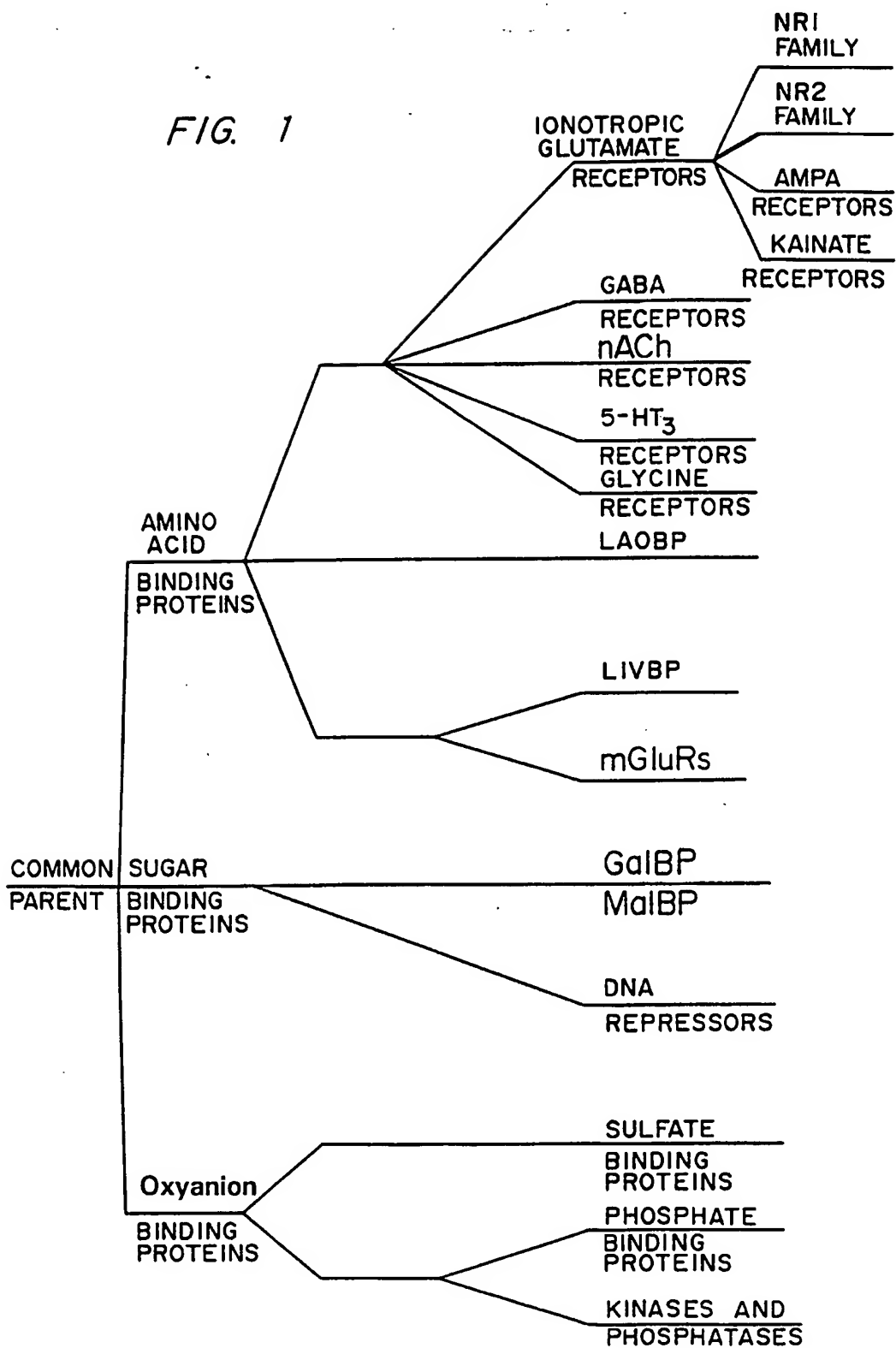
17. The method of claim 15 wherein the binding protein is NMDA receptor NR2-B and the model of the binding protein is the model of Table 4.

18. The method of claim 15 wherein the binding protein is kainate receptor GluR6 and the model of the binding protein is the model of Table 5.

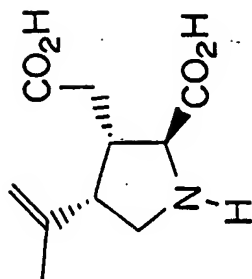
19. The method of claim 15 wherein the binding protein is NMDA receptor NR1 and the model of the binding protein is the model of Table 6.

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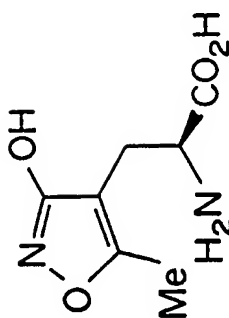
FIG. 1



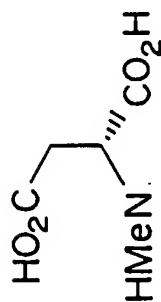
2/10



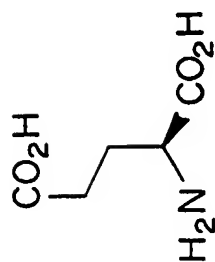
Kainic Acid



S-AMPA



NMDA



L-glutamate

FIG. 2

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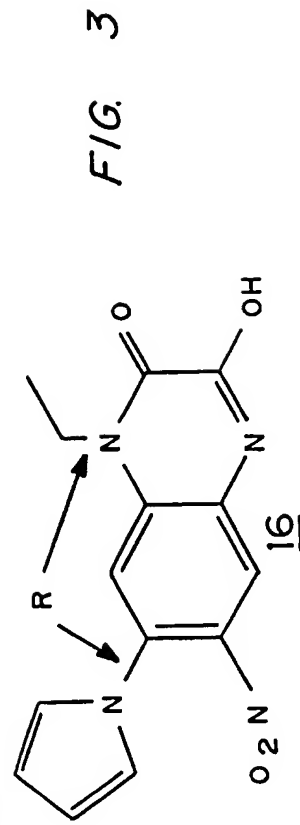
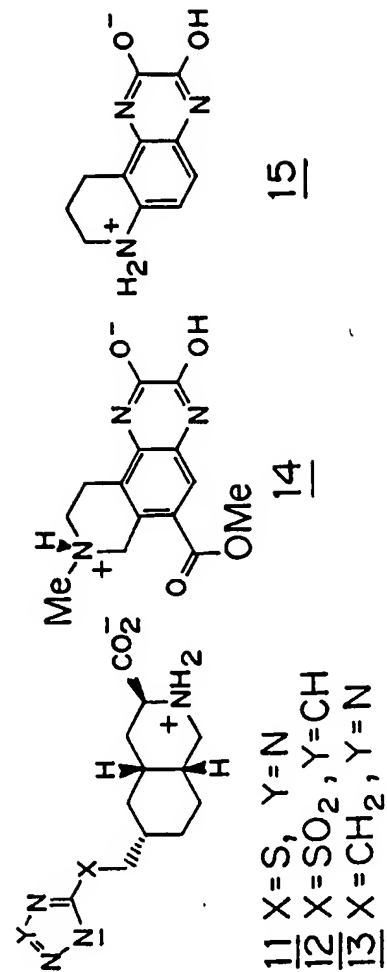
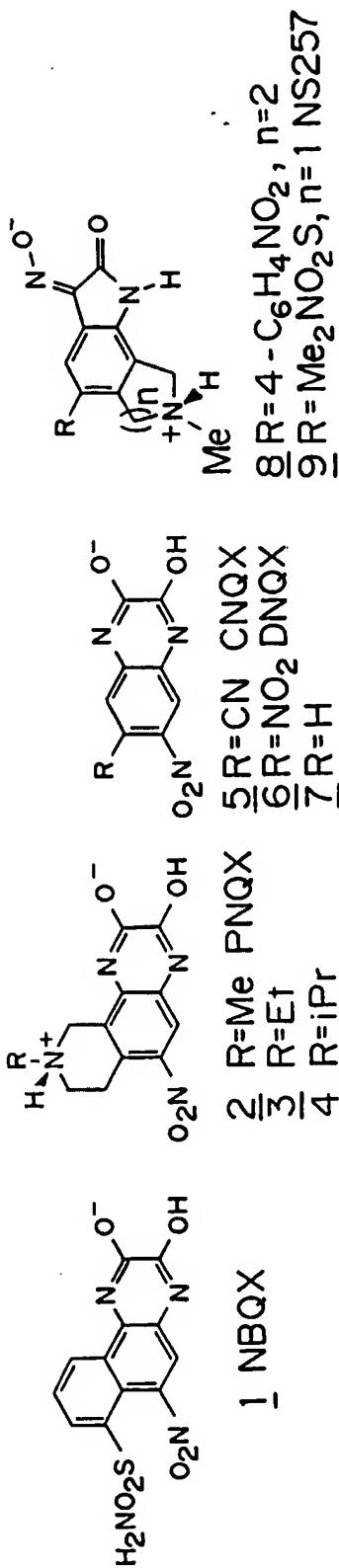
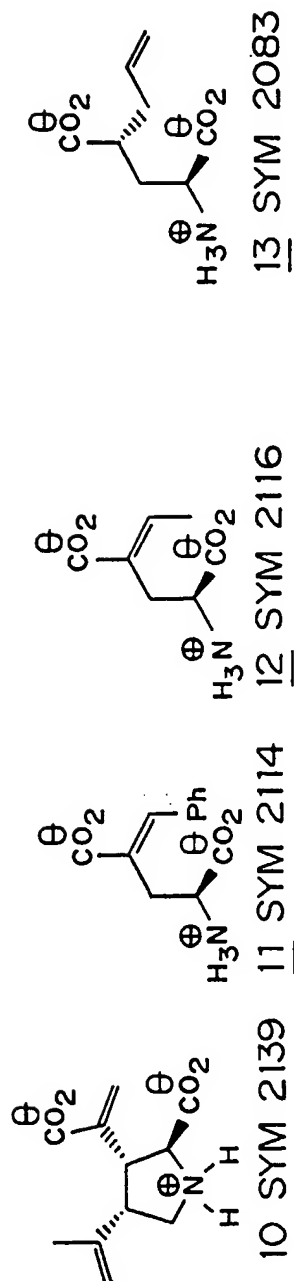
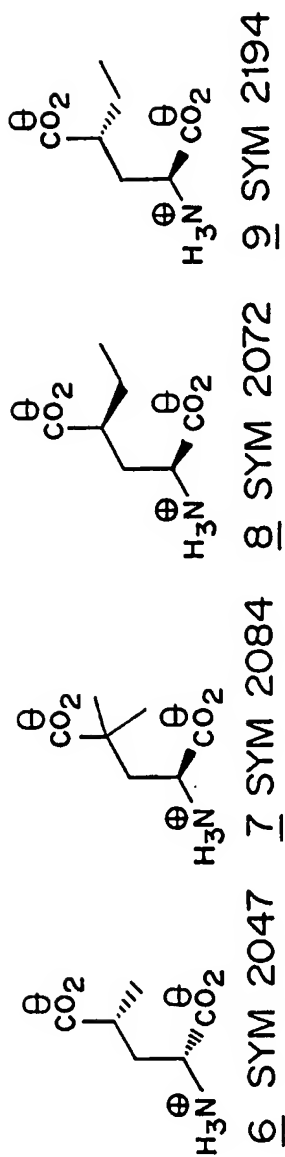
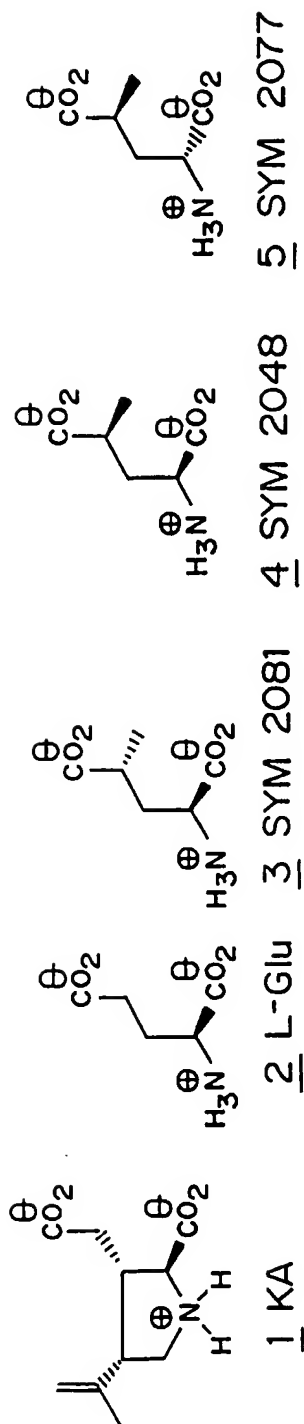


FIG. 3

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FIG. 4



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LAOBP	1	ALPDTVRIGT SSSSSS	DTTYAPFSSK DAKGEFI---	FTVNGDPVKK -----T -----T T ----- -----
NR1-Z human	395	STRLKIVTII	QEPFV-YVKP	TLSDGTCKEE
NR2-C human	400	SRHLTVATLE	ERPEVIVESP	DPGTGGCVPN
NR2-B rat	403	DDHLSIVTLE	EAPFVIVESV	DPLSGTCMRN
NR2-A rat	403	DNHLSIVTLE	EAPFVIVEDI	DPLTETCVRN
GluR3	415	NRTIVVTIIL	ESPYVMYKKN	HEMLEGNER-
GluR6	429	NRSLIVTTIL	EEPVLFFKKS	DKPLYGNDR-
		+L V TI	D GC R	
	FIG. 5A	E PAVI	*	
		*	*	
LAOBP	28	-----	-----GFDID	LGNECKRMQ
		-----	hhhhh	hhhhh
NR1-Z human	434	VICTGPNDS	PGSPRH-TVP	-QCCYGFCD
NR2-C human	431	VPCRRQSNHT	FSSGDVAPYT	KLCKKGFCID
NR2-B rat	434	VPCQKRIISE	NKTDEEPGYI	KKCKKGFCID
NR2-A rat	434	VPCRKFVKIN	NSTNEGMNV-	KKCKKGFCID
GluR3	444	-----	-----	---YEGYCD
GluR6	458	-----	-----	---FEGYCD
		V C +	K CC GACID	LL KLA+ V+

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LAOBP	43	V---KCTWVA	SDFD	---	AL	IPSLKAKKID
		sssss			hh	hhhhhh
NR1-Z human	472	FTYEVHLVAD	GKFGTQERVN	NSNKKEWNGM	MGELLSGQAD	
NR2-C human	471	FSYDLYLVTN	GKHGKRVN	-----GVWNGM	IGEVYKRAD	
NR2-B rat	474	FTYDLYLVTN	GKHGKKIN	-----GTWNGM	IGEVVMKRAY	
NR2-A rat	473	FTYDLYLVTN	GKHGKKVN	-----NVWNGM	IGEVVYQRAV	
Glur3	461	IKYKLSIVGD	GKYGARDPE	-----TKIWNM	VGELVYGKAD	
Glur6	475	FTYEIRLVED	GKYGAQDDV	-----NGQWNGM	VRELIDHKAD	
		F Y L LV D	GKAG	G	WNGM	IGELV +AD
			**		*	
FIG. 5B						
LAOBP	66	AIISLSITD	KRQOEIAFSD	-KLYAADSRL	IAAKG----	
		sss	hhhh	ssss	ssss	ssss
NR1-Z human	512	MIVAPLTINN	ERAQYIEFSK	PFKYQGLTIL	VKKEIPR	
NR2-C human	505	MAIGSLTINE	ERSEIVDFSV	PFVETGISVM	VARSN	
NR2-B rat	508	MAVGSILTINE	ERSEVDFSV	PFVETGISVM	VSRSN	
NR2-A rat	507	MAVGSILTINE	ERSEVDFSV	PFVETGISVM	VSRSN	
Glur3	497	IAPAPLTITL	VREEVIDFSK	PFMSLGISIM	IKKPQKSK	
Glur6	511	LAVAPLAITY	VREKVIDFSK	PFMTLGISIL	YRKPNGTN	
		MAVAPLTIN	ER	EVIDFS	PF	GISIM V + N
		***	*			

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LAOBP	100	-----SPVQ-P	TLESKKG---	KHVGVLQSGT	QEAYANDNWR
			hhh	sssss	hhhhhhh
NR1-Z human	665	TGINDPRLRN	P--SDK----	IYATVKQSSV	DIYFRQVE-
NR2-C human	666	KKFQRPQDQY	PP-----F	RFGTVPNGST	ERNIRSNY--
NR2-B rat	669	KKFQRPNDFS	PP-----F	RFGTVPNGST	ERNIRNNY--
NR2-A rat	668	KKFQRPNDYS	PP-----F	RFGTVPNGST	ERNIRNNY--
GluR3	652	ERMVSPIE-S	AEDLAKQETI	AYGTLDSCST	KEFFRRSKIA
GluR6	660	ERMESPID-S	ADDLAKQTKI	EYGAVEDGAT	MTFFKKSIS

AF+

+	P	D	S	P	K	F	AGTV	GST

FIG. 5C

LAOBP	132	-TKGVDVVAY	ANQD-----LI	YSDLTAGRLD	AALQ-DEVAA
		sssss	hh	hhhhh	sss hhh
NR1-Z human	699	-LSTMYRHM	KNY-----ES	AAEAIQAVRD	NKLH-AFIWD
NR2-C human	697	--RDMHTHMV	KENQ-----RS	VEDALTSKLM	GKLD-AFIYD
NR2-B rat	700	--AEMHAYMG	KENQ-----RG	VDDALLSLKT	GKLD-AFIYD
NR2-A rat	699	--PYMHQYMT	KENQ-----RG	VEDALVSLKT	GKLD-AFIYD
GluR3	691	VYEKMWSYMK	SAEPSVFTKT	TADGVARVRK	SKGKEAFLE
GluR6	699	TYDKMWAEMS	SRQSVLVKS	NEEGIQRV--	LTSDYAFLE

KLD AFIA-

MARAM	+ANQ	+S	--AL	V+	KLD AFIA-
-------	------	----	------	----	-----------

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LAOBP	166	SEGFLKQAG	KEYAFAGPSV	-KDKKFFG	TGVGLRKDDT
		hhhhh	ssss	xxxxx	ssss
NR1-Z human	733	SAVLEFE---	ASQKCDLVT-	-TGELEFRSG	FGIGMRK-DS
NR2-C human	730	AAVLNYM-AG	KDEGCKLVTI	SGGKVFATTG	YGIAMQK-DS
NR2-B rat	733	AAVLNYM-AG	RDEGCKLVT-	-SGKVFASTG	YGIAIQK-DS
NR2-A rat	732	AAVLNYK-AG	RDEGCKLVTI	SGGYIEFASTG	YGIALQK-GS
GluR3	731	STMNEYI--E	QRKPCDTMK-	-VGGNLD SKG	YGVATPK-GS
GluR6	737	STTIEFV--T	QRN-CNLTQ-	-IGGLIDSKG	YGVGTPM-GS

FIG. 5D

LAOBP	205	ELKAAFDKAL	TELRQDGTVD	KMAKKYF-DE	NVYGD
		hhhhhhhhh	hhhh	hhhhh	
NR1-Z human	767	PWKQNVSLSI	LKSHENGEME	DLDKTWV-RY	QECDS
NR2-C human	769	HWKRAIDLAL	LQFLGDGETQ	KLETWV--S	GICQN
NR2-B rat	769	GWKRQVDLAI	LQLFGDGEME	ELEALW--T	GICHN
NR2-A rat	770	PWKRQIDLAL	LQFVGDGEME	ELETWL--T	GICHN
GluR3	766	ALGNVNLAV	LKLNQGLLD	KLKNKWWYDK	GECGS
GluR3	771	PYRDKITIAI	LQLQEEGKLH	MMKEKWW-RG	NGCPE

ArK V LAI LQL E G M L W G C

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LAOBP	1	ALPDTVRIGT	DTTYAP--FS	SKD-----AK	GEEFIGDIDL	hhhhhh
		sssss				
GluR3	412	SSENRTIVVT	TILESPYVMY	KKNHEMLEGN	ERYEGYCVDL	
GluR6	426	SLSNRSLIVT	TILEEPYVLF	KKSDKPLYGN	DRFEGYCIDL	
LAOBP	34	GNEMCKRMQV	KCTWV-ASDF	DALIPSLKAK	KI-----	
		hhhhhhhh	ssss	hhhhhhhh		h
GluR3	452	AYEIAKHVRI	KYKLSIVGDG	KYGARDPETK	IWNGMVGELV	
GluR6	466	LRELSTILGF	TYEIRLVEDG	KYGAQDDVNG	QWNGMVRELI	
LAOBP	65	----DAIISS	LSITDKRQOE	IAFSD-KLYA	ADSRLLIAAKG	
		sss	hhhhhh	sss sssx	xxxxsssssss	
GluR3	492	YGKADIAVAP	LTITLVREEV	IDFSKPFMSL	GISIMIKKPQ	
GluR6	506	DHKADLAVAP	LAITYVREKV	IDFSKPFMTL	GISILYRKPN	
LAOBP	100	---SPVQ-PT	LESLKG---K	HVGVLQGSTQ	EAYANDNWR-	
			hhh	s ssss	h hhhhh	
GluR3	651	VERMVSPIES	AEDLAKQETI	AYGTLDSGST	KEFFRRSKIA	
GluR6	659	VERMESPIDS	ADDLAKQTKI	EYGAVEDGAT	MTFFKSKIS	

FIG. 6A

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LAOBP 132	-TKGVDVVAY A-----N QDLIYSDLT A GRILDAALQDE	sssss	hhhhhhhh	ssss
GluR3 691	VYEKMWSYMK SAEPSVFTKT TADGVARVRK SKGKFAFLLE			
GluR6 699	TYDKMWAEMS SRRQSVLVKS NEEGIQRVLT S--DYAFILME			
LAOBP 163	VAAASEGFLKQ PAGKEYAFAG PSVKDKKYFG DGTGVGLRKD	hhhhhhhh	xxxxxx	ssss
GluR3 731	STMNEYIEQR KPC--DTMKV GGNL-----DS KGYGVATPK-			
GluR6 737	STTIEFVTQR N-C--NLTQI GGLI-----DS KGYGVGTPM-			
LAOBP 203	DTELKAAAFDK ALTELQRQDGT YDKMAKKYFD FNVYGD	hhhhhhhh	hhhhhhhh	
GluR3 764	GSALGNVAVNL AVLKLNEQGL LDKLKNKWWY DKGECCG			
GluR6 769	GSPYRDKITI AILQLQEECK LHMMEKEKWW- RGNCGCP			

FIG. 6B